

1

PREscore 4.0

PAGE:

NPL Characteristics Data Collection Form
Ohio Oil Company - 07/14/98

Record Information
ffffffffffffffffffff

1. Site Name: Ohio Oil Company
(as entered in CERCLIS)
2. Site CERCLIS Number: OK0001981349
3. Site Reviewer: Karen Khalafian
4. Date: 07.14.98
5. Site Location: Bristow, Creek County, Oklahoma
(City/County,State)
6. Congressional District: 2
7. Site Coordinates: Single

Latitude: 35°50'52.8"

Longitude: 96°22'45.85"

Site Description
ffffffffffffffffffff

1. Setting: Rural
2. Current Owner: Private - Individual
3. Current Site Status: Inactive
4. Years of Operation: Inactive Site, from and to dates: 1917-1942
5. How Initially Identified: State/Local Program
6. Entity Responsible for Waste Generation:
 - Other - Ohio Oil Company Refinery
 - Manufacturing
7. Site Activities/Waste Deposition:
 - Other - Contaminated soil, waste
 - Surface Impoundment

2

PREscore 4.0

PAGE:

NPL Characteristics Data Collection Form
Ohio Oil Company - 07/14/98

Waste Description

ffffffffffffffffffff

8. Wastes Deposited or Detected Onsite:

- Organic Chemicals
- Metals

Response Actions
ffffffffffffffffffff

9. Response/Removal Actions:

RCRA Information
ffffffffffffffffffff

10. For All Active Facilities, RCRA Site Status:

- Not Applicable

Demographic Information
ffffffffffffffffffff

11. Workers Present Onsite: Yes

12. Distance to Nearest Non-Worker Individual: Onsite

13. Residential Population Within 1 Mile: 606.0

14. Residential Population Within 4 Miles: 5851.0

Water Use Information
ffffffffffffffffffff

15. Local Drinking Water Supply Source:

- Ground Water (within 4 mile distance limit)

16. Total Population Served by Local Drinking Water Supply Source:
5851.0

17. Drinking Water Supply System Type for Local Drinking
Water Supply Sources:

- Municipal (Services over 25 People)
- Private

18. Surface Water Adjacent to/Draining Site:

- Stream
- Wetland
- Lake

1. Site Name: Ohio Oil Company
(as entered in CERCLIS)
2. Site CERCLIS Number: OK0001981349
3. Site Reviewer: Karen Khalafian
4. Date: 07.14.98
5. Site Location: Bristow, Creek County, Oklahoma
(City/County,State)
6. Congressional District: 2
7. Site Coordinates: Single

[illegible]

Site names, and references to specific parcels or properties, are provided for general identification purposes only. Knowledge regarding the extent of sites will be refined as more information is developed during the RI/FS and even during implementation of the remedy.

GROUND WATER MIGRATION PATHWAY SCORESHEET
Ohio Oil Company - 07/14/98

| GROUND WATER MIGRATION PATHWAY | | | |
|-------------------------------------|---------------|----------------|----------|
| Factor Categories & Factors | Maximum Value | Assigned Value | |
| Likelihood of Release to an Aquifer | | | |
| Aquifer: Barnsdall Formation | | | |
| 1. Observed Release | | | |
| 2. Potential to Release | | | |
| 2a. Containment | 10 | | 10 |
| 2b. Net Precipitation | 10 | | 1 |
| 2c. Depth to Aquifer | 5 | | 5 |
| 2d. Travel Time | 35 | | 35 |
| 2e. Potential to Release | | | |
| [lines 2a(2b+2c+2d)] | 500 | | 410 |
| 3. Likelihood of Release | 550 | | 550 |
| Waste Characteristics | | | |
| 4. Toxicity/Mobility | | | |
| 5. Hazardous Waste Quantity | | | |
| 6. Waste Characteristics | 100 | | 10 |
| Targets | | | |
| 7. Nearest Well | | | |
| 8. Population | | | |
| 8a. Level I Concentrations | ** | | 0.00E+00 |
| 8b. Level II Concentrations | ** | | 5.00E+00 |
| 8c. Potential Contamination | ** | | 1.07E+02 |
| 8d. Population (lines 8a+8b+8c) | ** | | 1.12E+02 |
| 9. Resources | 5 | | 0.00E+00 |

| | | |
|--|-----|----------|
| '10. Wellhead Protection Area | 20 | 0.00E+00 |
| '11. Targets (lines 7+8d+9+10) | ** | 1.57E+02 |
| '12. Targets (including overlaying aquifers) | ** | 1.57E+02 |
| '13. Aquifer Score | 100 | 10.47 |
| AA | | |
| ' GROUND WATER MIGRATION PATHWAY SCORE (Sgw) | 100 | 10.47 |
| AA | | |

* Maximum value applies to waste characteristics category.
 ** Maximum value not applicable.

PREscore 4.0

PAGE:

3 SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
 Ohio Oil Company - 07/14/98

UAA

| ' SURFACE WATER OVERLAND/FLOOD MIGRATION | ' | ' |
|--|-----------|------------|
| ' COMPONENT | ' Maximum | ' Value |
| ' Factor Categories & Factors | ' Value | ' Assigned |
| ' DRINKING WATER THREAT | ' | ' |
| AA | | |
| ' Likelihood of Release | ' | ' |
| AA | | |
| ' 1. Observed Release | ' 550 | ' 550 |
| ' 2. Potential to Release by Overland Flow | ' | ' |
| ' 2a. Containment | ' 10 | ' 10 |
| ' 2b. Runoff | ' 25 | ' 1 |
| ' 2c. Distance to Surface Water | ' 25 | ' 25 |
| ' 2d. Potential to Release by Overland | ' 500 | ' 260 |
| ' Flow [lines 2a(2b+2c)] | ' | ' |
| ' 3. Potential to Release by Flood | ' | ' |
| ' 3a. Containment (Flood) | ' 10 | ' 10 |
| ' 3b. Flood Frequency | ' 50 | ' 7 |
| ' 3c. Potential to Release by Flood | ' 500 | ' 70 |
| ' (lines 3a x 3b) | ' | ' |
| ' 4. Potential to Release (lines 2d+3c) | ' 500 | ' 330 |

```

3      3 5. Likelihood of Release      3      550 3      550
3
3      ~~~~~
A-    3 Waste Characteristics      3      3
3
3      ~~~~~
A-    3 6. Toxicity/Persistence      3      * 3      1.00E+04
3
3      3 7. Hazardous Waste Quantity      3      * 3      100
3
3      3 8. Waste Characteristics      3      100 3      32
3
3      ~~~~~
A-    3 Targets      3      3
3
3      ~~~~~
A-    3 9. Nearest Intake      3      50 3      0.00E+00
3
3      3 10. Population      3      3
3
3      3 10a. Level I Concentrations      3      ** 3      0.00E+00
3
3      3 10b. Level II Concentrations      3      ** 3      0.00E+00
3
3      3 10c. Potential Contamination      3      ** 3      0.00E+00
3
3      3 10d. Population (lines 10a+10b+10c)      3      ** 3      0.00E+00
3
3      3 11. Resources      3      5 3      0.00E+00
3
3      3 12. Targets (lines 9+10d+11)      3      ** 3      0.00E+00
3
3      ~~~~~
A-    3 13. DRINKING WATER THREAT SCORE      3      100 3      0.00
3
3      ~~~~~
AU
    * Maximum value applies to waste characteristics category.
    ** Maximum value not applicable.

```

PREscore 4.0

PAGE:

4

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
Ohio Oil Company - 07/14/98

```

3      3 SURFACE WATER OVERLAND/FLOOD MIGRATION      3      3
3
3      3 COMPONENT      3      Maximum 3      Value
3
3      3 Factor Categories & Factors      3      Value 3      Assigned
3
3      3 HUMAN FOOD CHAIN THREAT      3      3
3
3      ~~~~~
A-    3 Likelihood of Release      3      3

```

```

3
A- ~~~~~
3 22. Likelihood of Release (same as line 5) 3 550 3 550
3
A- ~~~~~
3 Waste Characteristics 3 3
3
A- ~~~~~
3 23. Ecosystem Toxicity/Persistence/Bioacc. 3 * 3 5.00E+08
3
3 24. Hazardous Waste Quantity 3 * 3 100
3
3 25. Waste Characteristics 3 1000 3 320
3
A- ~~~~~
A- 3 Targets 3 3
3
A- ~~~~~
3 26. Sensitive Environments 3 3
3
3 26a. Level I Concentrations 3 ** 3 0.00E+00
3
3 26b. Level II Concentrations 3 ** 3 2.50E+01
3
3 26c. Potential Contamination 3 ** 3 0.00E+00
3
3 26d. Sensitive Environments 3 ** 3 2.50E+01
3
3 (lines 26a+26b+26c) 3 3
3
3 27. Targets (line 26d) 3 ** 3 2.50E+01
3
A- ~~~~~
A- 3 28. ENVIRONMENTAL THREAT SCORE 3 60 3 53.33
3
A- ~~~~~
A- 3 29. WATERSHED SCORE 3 100 3 100.00
3
A- ~~~~~
A- 3 30. SW: OVERLAND/FLOOD COMPONENT SCORE (Sof) 3 100 3 100.00
3
A- ~~~~~
AU
* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

```

PREscore 4.0

PAGE:

6

GROUND WATER TO SURFACE WATER MIGRATION COMPONENT SCORESHEET
Ohio Oil Company - 07/14/98

```

A- ~~~~~
3 GROUND WATER TO SURFACE WATER MIGRATION 3 3
3
3 COMPONENT 3 Maximum 3 Value

```

```

3
A- 14. Likelihood of Release (same as line 5) 3 550 3 550
3
A- 15. Toxicity/Persistence/Bioaccumulation 3 * 3 5.00E+08
3
3 16. Hazardous Waste Quantity 3 * 3 100
3
3 17. Waste Characteristics 3 1000 3 320
3
A- 18. Food Chain Individual 3 50 3 4.50E+01
3
3 19. Population 3
3
3 19a. Level I Concentrations 3 ** 3 0.00E+00
3
3 19b. Level II Concentrations 3 ** 3 9.00E-02
3
3 19c. Pot. Human Food Chain Contamination 3 ** 3 0.00E+00
3
3 19d. Population (lines 19a+19b+19c) 3 ** 3 9.00E-02
3
3 20. Targets (lines 18+19d) 3 ** 3 4.51E+01
3
A- 21. HUMAN FOOD CHAIN THREAT SCORE 3 100 3 96.19
3
AU
* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

```

PREscore 4.0

PAGE:

5

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
Ohio Oil Company - 07/14/98

```

A2 1. SURFACE WATER OVERLAND/FLOOD MIGRATION 3
3
3 2. COMPONENT 3 Maximum 3 Value
3
3 3. Factor Categories & Factors 3 Value 3 Assigned
3
3 4. ENVIRONMENTAL THREAT 3
3
A- 5. Likelihood of Release 3

```


| | | | | | | |
|---|---|--|---|-------|---|----------|
| 3 | 3 | Factor Categories & Factors | 3 | Value | 3 | Assigned |
| 3 | 3 | DRINKING WATER THREAT | 3 | | 3 | |
| 3 | 3 | AA | 3 | | 3 | |
| 3 | 3 | Likelihood of Release to Aquifer | 3 | | 3 | |
| 3 | 3 | Aquifer: Barnsdall Formation | 3 | | 3 | |
| 3 | 3 | AA | 3 | | 3 | |
| 3 | 3 | 1. Observed Release | 3 | 550 | 3 | 550 |
| 3 | 3 | 2. Potential to Release | 3 | | 3 | |
| 3 | 3 | 2a. Containment | 3 | 10 | 3 | 10 |
| 3 | 3 | 2b. Net Precipitation | 3 | 10 | 3 | 1 |
| 3 | 3 | 2c. Depth to Aquifer | 3 | 5 | 3 | 5 |
| 3 | 3 | 2d. Travel Time | 3 | 35 | 3 | 35 |
| 3 | 3 | 2e. Potential to Release | 3 | | 3 | |
| 3 | 3 | [lines 2a(2b+2c+2d)] | 3 | 500 | 3 | 410 |
| 3 | 3 | 3. Likelihood of Release | 3 | 550 | 3 | 550 |
| 3 | 3 | AA | 3 | | 3 | |
| 3 | 3 | Waste Characteristics | 3 | | 3 | |
| 3 | 3 | AA | 3 | | 3 | |
| 3 | 3 | 4. Toxicity/Mobility/Persistence | 3 | * | 3 | 1.00E+02 |
| 3 | 3 | 5. Hazardous Waste Quantity | 3 | * | 3 | 100 |
| 3 | 3 | 6. Waste Characteristics | 3 | 100 | 3 | 10 |
| 3 | 3 | AA | 3 | | 3 | |
| 3 | 3 | Targets | 3 | | 3 | |
| 3 | 3 | AA | 3 | | 3 | |
| 3 | 3 | 7. Nearest Intake | 3 | 50 | 3 | 0.00E+00 |
| 3 | 3 | 8. Population | 3 | | 3 | |
| 3 | 3 | 8a. Level I Concentrations | 3 | ** | 3 | 0.00E+00 |
| 3 | 3 | 8b. Level II Concentrations | 3 | ** | 3 | 0.00E+00 |
| 3 | 3 | 8c. Potential Contamination | 3 | ** | 3 | 0.00E+00 |
| 3 | 3 | 8d. Population (lines 8a+8b+8c) | 3 | ** | 3 | 0.00E+00 |
| 3 | 3 | 9. Resources | 3 | 5 | 3 | 0.00E+00 |
| 3 | 3 | 10. Targets (lines 7+8d+9) | 3 | ** | 3 | 0.00E+00 |

```

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A- 11. DRINKING WATER THREAT SCORE          100      0.00
,
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AU
* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

```

```

                                PREscore 4.0                                PAGE:
7
GROUND WATER TO SURFACE WATER MIGRATION COMPONENT SCORESHEET
Ohio Oil Company - 07/14/98

```

```

UAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A2
, GROUND WATER TO SURFACE WATER MIGRATION          ,
,
, COMPONENT          , Maximum , Value
,
, Factor Categories & Factors          , Value , Assigned
,
, HUMAN FOOD CHAIN THREAT          ,
,
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A-
, Likelihood of Release          ,
,
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A-
, 12. Likelihood of Release (same as line 3) , 550 , 550
,
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A-
, Waste Characteristics          ,
,
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A-
, 13. Toxicity/Mobility/Persistence/Bioacc. , * , 2.00E+05
,
, 14. Hazardous Waste Quantity          , * , 100
,
, 15. Waste Characteristics          , 1000 , 56
,
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A-
, Targets          ,
,
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A-
, 16. Food Chain Individual          , 50 , 0.00E+00
,
, 17. Population          ,
,
, 17a. Level I Concentrations          , ** , 0.00E+00
,
, 17b. Level II Concentrations          , ** , 0.00E+00
,
, 17c. Pot. Human Food Chain Contamination , ** , 0.00E+00
,
, 17d. Population (lines 17a+17b+17c) , ** , 0.00E+00
,
, 18. Targets (lines 16+17d)          , ** , 0.00E+00
,

```

```

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A- 19. HUMAN FOOD CHAIN THREAT SCORE          3      100 3      0.00
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AU
    * Maximum value applies to waste characteristics category.
    ** Maximum value not applicable.

```

```

8
                                PREscore 4.0                                PAGE:
                                GROUND WATER TO SURFACE WATER MIGRATION COMPONENT SCORESHEET
                                Ohio Oil Company - 07/14/98

```

```

UAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A2 3 GROUND WATER TO SURFACE WATER MIGRATION          3
3
3 COMPONENT          3 Maximum 3 Value
3
3 Factor Categories & Factors          3 Value 3 Assigned
3
3 ENVIRONMENTAL THREAT          3
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A- 3 Likelihood of Release          3
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A- 20. Likelihood of Release (same as line 3) 3      550 3      550
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A- 3 Waste Characteristics          3
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A- 21. Ecosystem Tox./Mobility/Persist./Bioacc. 3      * 3      5.00E+06
3
3 22. Hazardous Waste Quantity          3      * 3      100
3
3 23. Waste Characteristics          3      1000 3      100
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A- 3 Targets          3
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A- 24. Sensitive Environments          3
3
3 24a. Level I Concentrations          3      ** 3      0.00E+00
3
3 24b. Level II Concentrations          3      ** 3      2.50E+01
3
3 24c. Potential Contamination          3      ** 3      0.00E+00
3
3 24d. Sensitive Environments          3      ** 3      2.50E+01
3
3 (lines 24a+24b+24c)          3
3
3 25. Targets (line 24d)          3      ** 3      2.50E+01
3

```

```

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A- 26. ENVIRONMENTAL THREAT SCORE          3      60 3      16.67
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A- 27. WATERSHED SCORE                      3      100 3      16.67
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A- 28. SW: GW to SW COMPONENT SCORE (Sgs)    3      100 3      16.67
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AU
    * Maximum value applies to waste characteristics category.
    ** Maximum value not applicable.

```

```

                                     PREscore 4.0                                PAGE:
9
                                     SOIL EXPOSURE PATHWAY SCORESHEET
                                     Ohio Oil Company - 07/14/98

UAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A2 3 SOIL EXPOSURE PATHWAY                      3      3
3
3 Factor Categories & Factors                  3      Maximum 3      Value
3
3 RESIDENT POPULATION THREAT                  3      Value 3      Assigned
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A- 3 Likelihood of Exposure                      3      3
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A- 3 1. Likelihood of Exposure                  3      550 3      550
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A- 3 Waste Characteristics                      3      3
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A- 3 2. Toxicity                              3      * 3      1.00E+04
3
3 3. Hazardous Waste Quantity                  3      * 3      10
3
3 4. Waste Characteristics                    3      100 3      18
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A- 3 Targets                                  3      3
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
A- 3 5. Resident Individual                    3      50 3      4.50E+01
3
3 6. Resident Population                      3      3
3
3 6a. Level I Concentrations                  3      ** 3      0.00E+00
3
3 6b. Level II Concentrations                 3      ** 3      4.80E+01
3

```

| | | | | | |
|---|--|---|-----|---|----------|
| 3 | 6c. Resident Population (lines 6a+6b) | 3 | ** | 3 | 4.80E+01 |
| 3 | 7. Workers | 3 | 15 | 3 | 5.00E+00 |
| 3 | 8. Resources | 3 | 5 | 3 | 0.00E+00 |
| 3 | 9. Terrestrial Sensitive Environments | 3 | *** | 3 | 0.00E+00 |
| 3 | 10. Targets (lines 5+6c+7+8+9) | 3 | ** | 3 | 9.80E+01 |
| 3 | AA | | | | |
| 3 | 11. RESIDENT POPULATION THREAT SCORE | 3 | ** | 3 | 9.70E+05 |
| 3 | AA | | | | |

ÄÜ

* Maximum value applies to waste characteristics category.
 ** Maximum value not applicable.
 *** No specific maximum value applies, see HRS for details.

PREscore 4.0

PAGE:

10

SOIL EXPOSURE PATHWAY SCORESHEET
 Ohio Oil Company - 07/14/98

| | | | | | |
|---|--|---|---------|---|----------|
| 3 | AA | | | | |
| 3 | SOIL EXPOSURE PATHWAY | 3 | | 3 | |
| 3 | Factor Categories & Factors | 3 | Maximum | 3 | Value |
| 3 | NEARBY POPULATION THREAT | 3 | Value | 3 | Assigned |
| 3 | AA | | | | |
| 3 | Likelihood of Exposure | 3 | | 3 | |
| 3 | AA | | | | |
| 3 | 12. Attractiveness/Accessibility | 3 | 100 | 3 | 7.50E+01 |
| 3 | 13. Area of Contamination | 3 | 100 | 3 | 1.00E+02 |
| 3 | 14. Likelihood of Exposure | 3 | 500 | 3 | 5.00E+02 |
| 3 | AA | | | | |
| 3 | Waste Characteristics | 3 | | 3 | |
| 3 | AA | | | | |
| 3 | 15. Toxicity | 3 | * | 3 | 1.00E+04 |
| 3 | 16. Hazardous Waste Quantity | 3 | * | 3 | 10 |
| 3 | 17. Waste Characteristics | 3 | 100 | 3 | 18 |
| 3 | AA | | | | |
| 3 | Targets | 3 | | 3 | |
| 3 | AA | | | | |
| 3 | 18. Nearby Individual | 3 | 1 | 3 | 0.00E+00 |

Ä

```

3      19. Population Within 1 Mile      3      ** 3      3.70E-01
3
3      20. Targets (lines 18+19)      3      ** 3      3.70E-01
3
3      ~~~~~
A-    21. NEARBY POPULATION THREAT SCORE      3      ** 3      3.33E+03
3
3      ~~~~~
A-    3 SOIL EXPOSURE PATHWAY SCORE (Ss)      3      100 3      11.80
3
3      ~~~~~
AU
    * Maximum value applies to waste characteristics category.
    ** Maximum value not applicable.

```

PREscore 4.0

PAGE:

11

AIR PATHWAY SCORESHEET
Ohio Oil Company - 07/14/98

```

3      ~~~~~
A-    3 AIR MIGRATION PATHWAY      3      3
3
3      3 Factor Categories & Factors      3      Maximum 3      Value
3
3      3      Value 3      Assigned
3
3      ~~~~~
A-    3 Likelihood of Release      3      3
3
3      ~~~~~
A-    3 1. Observed Release      3      550 3      0
3
3      3 2. Potential to Release      3      3
3
3      3 2a. Gas Potential to Release      3      500 3      360
3
3      3 2b. Particulate Potential to Release      3      500 3      330
3
3      3 2c. Potential to Release      3      500 3      360
3
3      3 3. Likelihood of Release      3      550 3      360
3
3      ~~~~~
A-    3 Waste Characteristics      3      3
3
3      ~~~~~
A-    3 4. Toxicity/Mobility      3      * 3      2.00E+03
3
3      3 5. Hazardous Waste Quantity      3      * 3      100
3
3      3 6. Waste Characteristics      3      100 3      18
3
3      ~~~~~
A-    3 Targets      3      3

```

PREscore 4.0 PAGE:
12
WASTE QUANTITY
Ohio Oil Company - 07/14/98

[illegible]

AAAAA

e. Data Complete?

NO

AAAAA

f. Wastestream Quantity Value (W/5,000)

0.00E+00

AAAAA

PREscore 4.0

PAGE:

13

WASTE QUANTITY
Ohio Oil Company - 07/14/98

2. SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

AAAAA

a. Source ID

Waste Pit

AAAAA

b. Source Type

Other

AAAAA

c. Secondary Source Type

N.A.

AAAAA

d. Source Vol. (yd3/gal) Source Area (ft2)

500.00

AAAAA

e. Source Volume/Area Value

2.00E+02

AAAAA

f. Source Hazardous Constituent Quantity

0.00E+00

(HCQ) Value (sum of 1b)

AAAAA

g. Data Complete?

NO

AAAAA

h. Source Hazardous Wastestream Quantity

0.00E+00

(WSQ) Value (sum of 1f)

AAAAA

i. Data Complete?

NO

AAAAA

k. Source Hazardous Waste Quantity (HWQ)

2.00E+02

Value (2e, 2f, or 2h)

AA
 AAAAAU

| Source Hazardous Substances | Depth (feet) | Liquid | Concent. | Units |
|--------------------------------|-----------------|--------|----------|-------|
| AAAAA | | | | |
| | < 2 | NO | 0.0E+00 | ppm |
| Acetone | < 2 | NO | 3.4E-02 | ppm |
| Anthracene | < 2 | NO | 1.9E+01 | ppm |
| Arsenic | < 2 | NO | 1.5E+01 | ppm |
| Benz(a)anthracene | < 2 | NO | 1.3E+01 | ppm |
| Benzo(a)pyrene | < 2 | NO | 8.3E+00 | ppm |
| Benzo(g,h,i)perylene | < 2 | NO | 9.9E+00 | ppm |
| Chrysene | < 2 | NO | 3.2E+01 | ppm |
| Lead | < 2 | NO | 6.9E+01 | ppm |
| Mercury | < 2 | NO | 5.0E-01 | ppm |
| Methyl ethyl ketone | < 2 | NO | 3.0E-02 | ppm |
| Methylene chloride | < 2 | YES | 2.0E-02 | ppm |
| Methylnaphthalene, 2- | < 2 | NO | 4.3E+01 | ppm |
| Naphthalene | < 2 | NO | 5.5E+00 | ppm |
| Phenanthrene | < 2 | NO | 9.9E+01 | ppm |
| Pyrene | < 2 | NO | 1.3E+02 | ppm |
| Toluene | < 2 | NO | 2.5E-03 | ppm |

Documentation for Source Type:

The source "Waste Pit" is located on the central portion of the site just west of the railroad.

Reference 2.

Documentation for Source Hazardous Substances:

Hazardous substances contained in the source were identified through lab analysis. Locations, time of collections, sample quantitation limits, and background concentrations are listed in the SI narrative document.

Reference 2.

Documentation for Source Volume:

The dimensions of the waste pit on the central portion of the site were measured and are approximately 450ft. x 60ft. x 0.5ft = 13500 cubic feet. It is assumed that the depth is relatively constant throughout the source. Therefore, the volume of the waste pit is estimated at 500.04 cubic yards (13500 cu. ft. x 0.03704 (conversion factor) = 500.04 cu.yd.).

Reference 2.

1. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: Contaminated Soil 1

```

UAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAA
3a. Wastestream ID 3 N/A
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAA
3b. Hazardous Constituent Quantity (C) (lbs.) 3 0.00
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAA
3c. Data Complete? 3 NO
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAA
3d. Hazardous Wastestream Quantity (W) (lbs.) 3 0.00
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAA
3e. Data Complete? 3 NO
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAA
3f. Wastestream Quantity Value (W/5,000) 3 0.00E+00
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAU

```

15 PREscore 4.0 PAGE:

WASTE QUANTITY
Ohio Oil Company - 07/14/98

2. SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

```

UAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAA
3a. Source ID 3 Contaminated Soil 1
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAA
3b. Source Type 3 Contaminated Soil
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAA
3c. Secondary Source Type 3 N.A.
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAA
3d. Source Vol. (yd3/gal) 3 Source Area (ft2) 3 0.00 3
8400.00 3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAA
3e. Source Volume/Area Value 3 2.47E-01
3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAA
3f. Source Hazardous Constituent Quantity 3 0.00E+00
3

```

```

      (HCQ) Value (sum of 1b)
      g. Data Complete? NO
      h. Source Hazardous Wastestream Quantity 0.00E+00
      (WSQ) Value (sum of 1f)
      i. Data Complete? NO
      k. Source Hazardous Waste Quantity (HWQ) 2.47E-01
      Value (2e, 2f, or 2h)

```

| Source Hazardous Substances | Depth (feet) | Liquid | Concent. (ppm) | Units |
|--------------------------------|-----------------|--------|-------------------|-------|
| Lead | < 2 | NO | 9.5E+02 | ppm |

Documentation for Source Type:

Asphalt-like waste, believed to be tank bottom sediment from the 50,000 barrel storage tanks once were present on-site, was observed in two bermed areas on the eastern portion of the site during the site reconnaissance. During the sampling event both areas were covered by water pooled in these two areas after a rain. Samples were collected from both locations (OH-WS-2 and OH-WS-3), but only sample OH-WS-2 showed elevated level of just one contaminant. The dimensions of the area are: 120ft. x 70 ft.= 8400 sq. feet. The sampling team was not able to measure the depth of the waste source due to the presence of water. This waste source is considered to be a contaminated soil for the purposes of this SI.

References 2, 3, 4.

Documentation for Source Hazardous Substances:

Sample OH-WS-2 showed the highest concentration of lead detected on the site: 953 mg/Kg.

Reference 2.

Documentation for Source Volume:

The source is a contaminated soil.

Reference 2.

Documentation for Source Area:

The dimensions of the source are: 120ft. x 70ft.= 8400 sq. feet.

Reference 2.

16 PREscore 4.0 PAGE:
WASTE QUANTITY
Ohio Oil Company - 07/14/98

1. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: Contaminated Soil 2

UAAA
AAAAA;
3a. Wastestream ID 3
3
AAA
AAAAA'
3b. Hazardous Constituent Quantity (C) (lbs.) 3 0.00
3
AAA
AAAAA'
3c. Data Complete? 3 NO
3
AAA
AAAAA'
3d. Hazardous Wastestream Quantity (W) (lbs.) 3 0.00
3
AAA
AAAAA'
3e. Data Complete? 3 NO
3
AAA
AAAAA'
3f. Wastestream Quantity Value (W/5,000) 3 0.00E+00
3
AAA
AAAAAU

17 PREscore 4.0 PAGE:
WASTE QUANTITY
Ohio Oil Company - 07/14/98

2. SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

UAAA
AAAAA;
3a. Source ID 3 Contaminated Soil 2
3
AAA
AAAAA'
3b. Source Type 3 Contaminated Soil
3

```

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAA'
  'c. Secondary Source Type              ' N.A.
  '
  AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
  AAAAA'
  'd. Source Vol.(yd3/gal)' Source Area (ft2)'      0.00      '
1482550.00 '
  AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
  AAAAA'
  'e. Source Volume/Area Value              ' 4.36E+01
  '
  AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
  AAAAA'
  'f. Source Hazardous Constituent Quantity ' 0.00E+00
  '
  ' (HCQ) Value (sum of 1b)              '
  '
  AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
  AAAAA'
  'g. Data Complete?                      ' NO
  '
  AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
  AAAAA'
  'h. Source Hazardous Wastestream Quantity ' 0.00E+00
  '
  ' (WSQ) Value (sum of 1f)              '
  '
  AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
  AAAAA'
  'i. Data Complete?                      ' NO
  '
  AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
  AAAAA'
  'k. Source Hazardous Waste Quantity (HWQ) ' 4.36E+01
  '
  ' Value (2e, 2f, or 2h)              '
  '
  AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
  AAAAAU

```

| Source Hazardous Substances | Depth (feet) | Liquid | Concent. | Units |
|--------------------------------|-----------------|--------|----------|-------|
| Acetone | < 2 | NO | 3.7E-01 | ppm |
| Benzene | < 2 | NO | 4.0E-03 | ppm |
| Lead | < 2 | NO | 2.0E+02 | ppm |
| Methyl ethyl ketone | < 2 | NO | 1.3E-01 | ppm |
| Methylene chloride | < 2 | YES | 2.8E-02 | ppm |
| Toluene | < 2 | NO | 2.9E-02 | ppm |
| Xylene, m- | < 2 | NO | 5.0E-03 | ppm |

Documentation for Source Type:

After triangulating between sample points (OH-WS-2, OH-SS-3, OH-SD-1, OH-SD-2, OH-SD-4 (OH-SD-7), and OH-SD-5), which show elevated levels of similar contaminants, it was concluded that the contaminated soil source area, which includes two other distinguishable sources (the waste pit on the central portion of the site and the contaminated soil in the former tank berm area) covers about 35 acres

Reference 2.

Hazardous substances contained in the source were identified through lab analysis. Locations, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report. The State Environmental Laboratory was not able to correspond identified by their analysis xylenes with three kind of xylene from the Sample Contaminants table of PREscore. Xylene, m- was picked at random.

Reference 2.

After subtracting areas covered by the waste pit and the contaminated soil in the tank berm area (27000 sq. feet and 8400 sq. feet respectively) and areas covered by the remaining buildings (4000 sq. feet, 650 sq. feet, and 2000 sq. feet) from the area of contaminated soil (1524600 sq. feet), it was determined that the source covers 1482550 sq. feet.

Reference 2.

PREscore 4.0

PAGE:

18

WASTE QUANTITY

Ohio Oil Company - 07/14/98

1. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: Groundwater Plume

[illegible]

³a. Wastestream ID ³ N/A

3
 ~~~~~  
 ~~~~~

| | | |
|--|--|------|
| b. Hazardous Constituent Quantity (C) (lbs.) | | 0.00 |
|--|--|------|

A

| | | |
|--------------------|---|----|
| 3c. Data Complete? | 3 | NO |
|--------------------|---|----|

3
 ~~~~~  
 ~~~~~  
 ~~~~~

|                                               |   |      |
|-----------------------------------------------|---|------|
| 3d. Hazardous Wastestream Quantity (W) (lbs.) | 3 | 0.00 |
|-----------------------------------------------|---|------|

3  
 ~~~~~  
 ~~~~~

3e. Data Complete? 3 NO

**3**

~~~~~  
~~~~~

3

19

## WASTE QUANTITY

3

3

3

11

3

3

3

1

3

3

3

3

1

3

3

1

| Hazardous Substances | (feet) |    |         |     |
|----------------------|--------|----|---------|-----|
| AAAAA                |        |    |         |     |
| Acetone              | > 2    | NO | 1.0E-03 | ppm |
| Copper               | > 2    | NO | 1.3E-01 | ppm |
| Zinc                 | > 2    | NO | 1.6E-01 | ppm |

#### Documentation for Source Type:

There are only three contaminants found above background in municipal and domestic water wells. Zinc was detected in the sample taken from municipal well # 16 located one and one-quarter mile south of the site, copper was detected in the sample taken from a domestic water well at the residence located approximately 50 feet southwest of the site, and acetone was detected in the sample collected at the (b) (6) residence on-site. The duplicate sample collected at the same location does not contained acetone.

Reference 2.

#### Documentation for Source Hazardous Substances:

Hazardous substances contained in the source were identified through lab analysis. Locations, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

#### Documentation for Source Volume:

Zinc and copper were not detected in samples taken from the site at concentrations above the background. The presence of these contaminants indicates a possible release to groundwater. However, the conditions of the water pipes and faucets at the well heads are unknown. Therefore the contamination in the groundwater could also be from the wells. Also, water at the municipal well # 16 could be affected by the former activities at Wilcox Oil Company site (EPA ID OK0001010917) located between Ohio Oil Company site and the Well # 16. The presence of acetone at the concentration of 0.001 ppm in the sample OH-GW-6 and in the trip blank sample (OH-TB) at the concentration of 0.003 ppm, and its absence in the duplicate sample (OH-GW-1) may lead to the conclusion that its presence can probably be attributed to laboratory activities. Due to the fact that the extent of the groundwater plume is unknown for the purposes of this SI, it is assumed that at least 1 cubic yard of groundwater is contaminated. All wells were properly purged and the contamination is the reflection of the actual groundwater conditions. Therefore, we believed that this assumption is valid.

Reference 2.

20

PREscore 4.0

PAGE:

WASTE QUANTITY  
Ohio Oil Company - 07/14/98

### 3. SITE HAZARDOUS WASTE QUANTITY SUMMARY



| Hazardous                                                                    |               | Constituent or |              |               |
|------------------------------------------------------------------------------|---------------|----------------|--------------|---------------|
|                                                                              |               | Migration      | Vol. or Area | Wastestream   |
| Waste Qty.                                                                   | No. Source ID | Pathways       | Value (2e)   | Value (2f,2h) |
| Value (2k)                                                                   |               |                |              |               |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |               |                |              |               |
| AAAAA                                                                        |               |                |              |               |
| 1 Waste Pit                                                                  |               | GW-SW-SE-A     | 2.00E+02     | 0.00E+00      |
| 2.00E+02                                                                     |               |                |              |               |
| 2 Contaminated Soil 1                                                        |               | GW-SW-SE-A     | 2.47E-01     | 0.00E+00      |
| 2.47E-01                                                                     |               |                |              |               |
| 3 Contaminated Soil 2                                                        |               | GW-SW-SE-A     | 4.36E+01     | 0.00E+00      |
| 4.36E+01                                                                     |               |                |              |               |
| 4 Groundwater Plume                                                          |               | GW-SW-A        | 4.00E-01     | 0.00E+00      |
| 4.00E-01                                                                     |               |                |              |               |

PREscore 4.0 PAGE:

21

WASTE QUANTITY

Ohio Oil Company - 07/14/98

#### 4. PATHWAY HAZARDOUS WASTE QUANTITY AND WASTE CHARACTERISTICS SUMMARY TABLE

|                                                                              |   |                       |          |          |
|------------------------------------------------------------------------------|---|-----------------------|----------|----------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |   |                       |          |          |
| AAAAA                                                                        |   |                       |          |          |
| 3 Migration Pathway                                                          | 3 | Contaminant Values    | 3        | HWQVs* 3 |
| WCVs**3                                                                      |   |                       |          |          |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |   |                       |          |          |
| AAAAA                                                                        |   |                       |          |          |
| 3 Ground Water                                                               | 3 | Toxicity/Mobility     | 1.00E+02 | 3 100 3  |
| 10                                                                           | 3 |                       |          |          |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |   |                       |          |          |
| AAAAA                                                                        |   |                       |          |          |
| 3 SW: Overland Flow, DW                                                      | 3 | Tox./Persistence      | 1.00E+04 | 3 100 3  |
| 32                                                                           | 3 |                       |          |          |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |   |                       |          |          |
| AAAAA                                                                        |   |                       |          |          |
| 3 SW: Overland Flow, HFC                                                     | 3 | Tox./Persis./Bioacc.  | 5.00E+08 | 3 100 3  |
| 320                                                                          | 3 |                       |          |          |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |   |                       |          |          |
| AAAAA                                                                        |   |                       |          |          |
| 3 SW: Overland Flow, Env                                                     | 3 | Etox./Persis./Bioacc. | 5.00E+08 | 3 100 3  |
| 320                                                                          | 3 |                       |          |          |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |   |                       |          |          |
| AAAAA                                                                        |   |                       |          |          |
| 3 SW: GW to SW, DW                                                           | 3 | Tox./Persistence      | 1.00E+02 | 3 100 3  |
| 10                                                                           | 3 |                       |          |          |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |   |                       |          |          |
| AAAAA                                                                        |   |                       |          |          |
| 3 SW: GW to SW, HFC                                                          | 3 | Tox./Persis./Bioacc.  | 2.00E+05 | 3 100 3  |
| 56                                                                           | 3 |                       |          |          |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |   |                       |          |          |
| AAAAA                                                                        |   |                       |          |          |
| 3 SW: GW to SW, Env                                                          | 3 | Etox./Persis./Bioacc. | 5.00E+06 | 3 100 3  |
| 100                                                                          | 3 |                       |          |          |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |   |                       |          |          |
| AAAAA                                                                        |   |                       |          |          |
| 3 Soil Exposure:Resident                                                     | 3 | Toxicity              | 1.00E+04 | 3 10 3   |
| 18                                                                           | 3 |                       |          |          |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |   |                       |          |          |
| AAAAA                                                                        |   |                       |          |          |

3 Soil Exposure: Nearby 3Toxicity 1.00E+04 3 10 3  
 18 3  
 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
 AAAAAA  
 3 Air 3Toxicity/Mobility 2.00E+03 3 100 3  
 18 3  
 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
 AAAAAU

\* Hazardous Waste Quantity Factor Values  
 \*\* Waste Characteristics Factor Category Values

Note: SW = Surface Water  
 GW = Ground Water  
 DW = Drinking Water Threat  
 HFC = Human Food Chain Threat  
 Env = Environmental Threat

22 PREscore 4.0 PAGE:

# GROUND WATER PATHWAY AQUIFER SUMMARY Ohio Oil Company - 07/14/98

| No. Aquifer ID<br>Targets | Type  | Overlaying | Inter-<br>Connected | Likelihood |
|---------------------------|-------|------------|---------------------|------------|
|                           |       | No.        | with                | of Release |
| 1 Barnsdall Formation     | Non K | 0          | 0                   | 550        |
| 1.57E+02                  |       |            |                     |            |

## Containment AAAAAAAAAA

| No. | Source ID           | HWQ Value | Containment Value |
|-----|---------------------|-----------|-------------------|
| 1   | Waste Pit           | 2.00E+02  | 10                |
| 2   | Contaminated Soil 1 | 2.47E-01  | 10                |
| 3   | Contaminated Soil 2 | 4.36E+01  | 10                |
| 4   | Groundwater Plume   | 4.00E-01  | 10                |

=====  
 Containment Factor 10

Documentation for Ground Water Containment, Source Waste Pit:  
 There is no liner.  
 References 1, 2, 3.

Documentation for Ground Water Containment, Source Contaminated Soil  
 1:  
 There is no liner.  
 References 1, 2.

Documentation for Ground Water Containment, Source Contaminated Soil

2:

There is no liner.

References 1, 2.

Documentation for Ground Water Containment, Source Groundwater Plume:

The presence of zinc and copper indicates a possible release to groundwater and migration of these contaminants from the site.

Reference 2.

Net Precipitation  
AAAAAAAAAAAAAAAAAAAA

|                            |      |
|----------------------------|------|
| Net Precipitation (inches) | 3.00 |
|----------------------------|------|

Documentation for Net Precipitation:

The normal annual precipitation in the region of the site is about 37.19 inches per year. The 2-year 24-hour rainfall in the region of the site is about 3.8 inches.

Reference 2.

PREscore 4.0

PAGE:

23

GROUND WATER PATHWAY LIKELIHOOD OF RELEASE Barnsdall Formation  
AQUIFER

Ohio Oil Company - 07/14/98

Aquifer: Barnsdall Formation

Type of Aquifer: Non Karst

Overlaying Aquifer: 0

Interconnected with: 0

Documentation for Barnsdall Formation Aquifer:

The Barnsdall Formation, which is a part of the Vamoosa-Ada aquifer in the study area, outcrops at the Ohio Oil Co. site and potentially receives groundwater recharge from downward infiltration of precipitation falling on the ground surface. The Barnsdall Formation is a bedrock aquifer but is not considered to be a Principal Ground Water

Resource by the Oklahoma State Dept. of Health. Alluvial deposits of the

Sand and Little Deep Fork Creeks are present to the south of the site within the area of interest and considered to be a Principal Ground Water Resource by the Oklahoma State Dept. of Health.

The alluvial deposits consist of wedge shaped layers of sand, silt, clay, and gravel. These deposits range from 0 to 100 feet in thickness.

The Barnsdall Formation is approximately 200 feet thick under the site and consists of massive to thin beds of coarse to fine grainsandstone, irregularly interbedded with sandy to silty shale.

References 2, 4.

#### OBSERVED RELEASE

| No. | Well ID             | Well Type      | Distance<br>(miles) | Level of<br>Contamination |
|-----|---------------------|----------------|---------------------|---------------------------|
| 1   | Municipal Well # 16 | Standby Well   | 1.250               | Level II                  |
| 2   | Domestic Well       | Drinking Water | 0.000               | Level II                  |
| 3   | Domestic Well       | Drinking Water | 0.010               | Level II                  |

| Well<br>No. | Hazardous Substance | Concent. | MCL     | Cancer  | RFD     |
|-------------|---------------------|----------|---------|---------|---------|
| 1           | Zinc                | 1.6E+02  | 0.0E+00 | 0.0E+00 | 1.1E+04 |
| 2           | Acetone             | 1.0E+00  | 0.0E+00 | 0.0E+00 | 3.7E+03 |
| 3           | Copper              | 1.3E+02  | 1.3E+03 | 0.0E+00 | 0.0E+00 |

=====

Observed Release Factor                      550

#### Documentation for Well Municipal Well # 16:

The municipal well # 16 has not been used for more than one year. The City of Bristow keeps this well as a stand-by well due to the two new wells recently added to the municipal water system. Zinc was detected in sample taken from this well at concentration of 157 ppb.

References 2, 3, 4.

#### Documentation for Well Domestic Well :

The domestic water well is located on the site and serves 2 people. The presence of acetone at the concentration of 1.0 ppb in the sample OH-GW-6 and in the trip blank sample (OH-TB) at the concentration of 3.0 ppb, and its absence in the duplicate sample (OH-GW-1) may lead to the conclusion that its presence can probably be attributed to lab activities.

Reference 2.

#### Documentation for Well Domestic Well:

The presence of copper in the groundwater collected from the well at the residence located about 50 feet southwest of the site could be attributed

to the former refinery activities. Copper was detected at a concentration of 126 ppb. However, the conditions of the water pipes and faucets at the well head are unknown. The well serves 3 people (1 child).

Reference 2.

PREscore 4.0

PAGE:

24

GROUND WATER PATHWAY LIKELIHOOD OF RELEASE Barnsdall Formation  
AQUIFER

Ohio Oil Company - 07/14/98

#### POTENTIAL TO RELEASE

Containment  
AAAAAAAAAAAA

Containment Factor 10

Net Precipitation  
AAAAAAAAAAAAAAAAAAAA

Net Precipitation Factor 1

Depth to Aquifer  
AAAAAAAAAAAAAAAAAAAA

A. Depth of Hazardous Substances 200.00 feet

#### Documentation for Depth of Hazardous Substances:

Zinc was detected in the sample taken from municipal well # 16.  
The depth of the well is 200 feet.

Reference 4.

B. Depth to Aquifer from Surface 25.00 feet

#### Documentation for Depth to Aquifer from Surface :

The upper part of the Barnsdall Formation and the alluvial aquifer are unconfined, and are very susceptible to groundwater contamination by potential wastes or contaminated soil on-site. Depth to the shallowest water is less than 25 feet.

References 2, 4.

C. Depth to Aquifer (B - A) 0.00 feet

Depth to Aquifer Factor 5

Travel Time  
AAAAAAAAAAAA

Are All Layers Karst?

NO

Documentation for Karst Layers:

There are no indication that the site is located in an area of karst terrain.

References 2, 4.

Thickness of Layer(s) with Lowest Conductivity 25.00 feet

Documentation for Thickness of Layers with Lowest Conductivity:

Depth from the surface to the shallowest water is less than 25 feet.

Reference 2.

Hydraulic Conductivity (cm/sec) 1.0E-04

Documentation for Hydraulic Conductivity:

The Barnsdall Formation is approximately 200 feet thick under the site and consists of massive to thin beds of coarse to fine grain sandstone, irregularly interbedded with sandy to silty shale. According to the Table 3-6 of 40 CFR Part 300 HRS Final Rule, the value of 1.E-04 cm/sec was assigned to represent the lowest hydraulic conductivity of the layer.

References 1, 2, 4.

Travel Time Factor 35

=====

Potential to Release Factor 410

PREscore 4.0 PAGE:

25

GROUND WATER PATHWAY WASTE CHARACTERISTICS  
Ohio Oil Company - 07/14/98

Source: 1 Waste Pit

Source Hazardous Waste Quantity Value: 200.00

| Hazardous Substance | Toxicity Value | Mobility Value | Toxicity/Mobility Value |
|---------------------|----------------|----------------|-------------------------|
| AAAAAA              | 0              | 0.00E+00       | 0.00E+00                |
| Acetone             | 10             | 1.00E+00       | 1.00E+01                |
| Anthracene          | 10             | 2.00E-05       | 2.00E-04                |
| Arsenic             | 10000          | 1.00E-02       | 1.00E+02                |

|                          |       |          |          |
|--------------------------|-------|----------|----------|
| Benz (a) anthracene      | 1000  | 2.00E-07 | 2.00E-04 |
| Benzo (a) pyrene         | 10000 | 2.00E-09 | 2.00E-05 |
| Benzo (g, h, i) perylene | 0     | 2.00E-09 | 0.00E+00 |
| Chrysene                 | 10    | 2.00E-07 | 2.00E-06 |
| Lead                     | 0     | 2.00E-05 | 0.00E+00 |
| Mercury                  | 10000 | 2.00E-07 | 2.00E-03 |
| Methyl ethyl ketone      | 10    | 1.00E+00 | 1.00E+01 |
| Methylene chloride       | 10    | 1.00E+00 | 1.00E+01 |
| Methylnaphthalene, 2-    | 0     | 2.00E-03 | 0.00E+00 |
| Naphthalene              | 100   | 2.00E-01 | 2.00E+01 |
| Phenanthrene             | 0     | 2.00E-03 | 0.00E+00 |
| Pyrene                   | 100   | 2.00E-05 | 2.00E-03 |
| Toluene                  | 10    | 1.00E+00 | 1.00E+01 |

PREscore 4.0

PAGE:

26

GROUND WATER PATHWAY WASTE CHARACTERISTICS  
Ohio Oil Company - 07/14/98

Source: 2 Contaminated Soil 1

Source Hazardous Waste Quantity Value: 0.25

| Hazardous Substance | Toxicity Value | Mobility Value | Toxicity/Mobility Value |
|---------------------|----------------|----------------|-------------------------|
| AAAAAA              |                |                |                         |
| Lead                | 0              | 2.00E-05       | 0.00E+00                |

PREscore 4.0

PAGE:

27

GROUND WATER PATHWAY WASTE CHARACTERISTICS  
Ohio Oil Company - 07/14/98

Source: 3 Contaminated Soil 2

Source Hazardous Waste Quantity Value: 43.60

| Hazardous Substance | Toxicity Value | Mobility Value | Toxicity/Mobility Value |
|---------------------|----------------|----------------|-------------------------|
| AAAAAA              |                |                |                         |
| Acetone             | 10             | 1.00E+00       | 1.00E+01                |
| Benzene             | 100            | 1.00E+00       | 1.00E+02                |
| Lead                | 0              | 2.00E-05       | 0.00E+00                |
| Methyl ethyl ketone | 10             | 1.00E+00       | 1.00E+01                |
| Methylene chloride  | 10             | 1.00E+00       | 1.00E+01                |
| Toluene             | 10             | 1.00E+00       | 1.00E+01                |
| Xylene, m-          | 1              | 1.00E+00       | 1.00E+00                |

PREscore 4.0

PAGE:

28

GROUND WATER PATHWAY WASTE CHARACTERISTICS  
Ohio Oil Company - 07/14/98

Source: 4 Groundwater Plume

Source Hazardous Waste Quantity Value: 0.40

| Hazardous Substance | Toxicity<br>Value | Mobility<br>Value | Toxicity/<br>Mobility<br>Value |
|---------------------|-------------------|-------------------|--------------------------------|
| Acetone             | 10                | 1.00E+00          | 1.00E+01                       |
| Copper              | 0                 | 1.00E-02          | 0.00E+00                       |
| Zinc                | 10                | 2.00E-03          | 2.00E-02                       |

PREscore 4.0

PAGE:

29

GROUND WATER PATHWAY WASTE CHARACTERISTICS  
Ohio Oil Company - 07/14/98

Hazardous Substances Found in an Observed Release

| Well Observed Release<br>Toxicity/<br>No. Hazardous Substance<br>Mobility | Toxicity<br>Value | Mobility<br>Value |
|---------------------------------------------------------------------------|-------------------|-------------------|
| 1 Zinc                                                                    | 10                | 1.00E+00          |
| 2 Acetone                                                                 | 10                | 1.00E+00          |
| 3 Copper                                                                  | 0                 | 1.00E+00          |

PREscore 4.0

PAGE:

30

GROUND WATER PATHWAY WASTE CHARACTERISTICS  
Ohio Oil Company - 07/14/98

Toxicity/Mobility Value from Source Hazardous Substances:  
1.00E+02

Toxicity/Mobility Value from Observed Release Hazardous  
Substances:  
1.00E+01

Toxicity/Mobility Factor:  
1.00E+02

Sum of Source Hazardous Waste Quantity Values:  
2.44E+02

Hazardous Waste Quantity Factor:  
100

Waste Characteristics Factor Category:  
10



GROUND WATER PATHWAY TARGETS FOR AQUIFER Barnsdall Formation  
Ohio Oil Company - 07/14/98

Population by Well  
AAAAAAAAAAAAAAAAAAAA

| No.                                | Well ID             | Sample Type   | Distance<br>(miles) | Level of<br>Contamination |
|------------------------------------|---------------------|---------------|---------------------|---------------------------|
| Population<br>AAAAAAAAAAAAAAAAAAAA |                     |               |                     |                           |
| 1                                  | Municipal Well # 16 | Standby Well  | 1.250               | Level II                  |
| 0.00                               | 2                   | Domestic Well | Drinking Water      | 0.000                     |
| 2.00                               | 3                   | Domestic Well | Drinking Water      | 0.010                     |
| 3.00                               |                     |               |                     | Level II                  |

| Well<br>No.                   | Hazardous Substance | Concent. | MCL     | Cancer  | RFD     |
|-------------------------------|---------------------|----------|---------|---------|---------|
| Units<br>AAAAAAAAAAAAAAAAAAAA |                     |          |         |         |         |
| 1                             | Zinc                | 1.6E+02  | 0.0E+00 | 0.0E+00 | 1.1E+04 |
| ppb                           | 2                   | Acetone  | 1.0E+00 | 0.0E+00 | 3.7E+03 |
| ppb                           | 3                   | Copper   | 1.3E+02 | 1.3E+03 | 0.0E+00 |
| ppb                           |                     |          |         |         | 0.0E+00 |

Documentation for Well Municipal Well # 16:

The municipal well # 16 has not been used for more than one year. The City of Bristow keeps this well as a stand-by well due to the two new wells recently added to the municipal water system. Zinc was detected in sample taken from this well at concentration of 157 ppb.

References 2, 3, 4.

Documentation for Well Domestic Well :

The domestic water well is located on the site and serves 2 people. The presence of acetone at the concentration of 1.0 ppb in the sample OH-GW-6 and in the trip blank sample (OH-TB) at the concentration of 3.0 ppb, and its absence in the duplicate sample (OH-GW-1) may lead to the conclusion that its presence can probably be attributed to lab activities.

Reference 2.

Documentation for Well Domestic Well:

The presence of copper in the groundwater collected from the well at the residence located about 50 feet southwest of the site could be

attributed to the former refinery activities. Copper was detected at a concentration of 126 ppb. However, the conditions of the water pipes and faucets at the well head are unknown. The well serves 3 people (1 child).

Reference 2.

Level I Population Factor: 0.00  
Level II Population Factor: 5.00

PREscore 4.0

PAGE:

32

GROUND WATER PATHWAY TARGETS FOR AQUIFER Barnsdall Formation  
Ohio Oil Company - 07/14/98

Potential Contamination by Distance Category  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

| Distance Category<br>(miles) | Population | Value    |
|------------------------------|------------|----------|
| AAA                          |            |          |
| > 0 to 1/4                   | 52.5       | 5.30E+00 |
| > 1/4 to 1/2                 | 2.7        | 2.00E-01 |
| > 1/2 to 1                   | 16.1       | 5.00E-01 |
| > 1 to 2                     | 4183.3     | 9.39E+01 |
| > 2 to 3                     | 411.6      | 6.80E+00 |
| > 3 to 4                     | 72.4       | 4.00E-01 |
| AAA                          |            |          |

Potential Contamination Factor: 107.000

Documentation for Target Population > 0 to 1/4 mile Distance Category:

There are about 52.48 people served by private wells within this distance category (excluding 5 people shown on the table below).

References 2, 4.

Documentation for Target Population > 1/4 to 1/2 mile Distance Category:

There are about 2.68 people served by private well within this distance category.

References 2, 4.

Documentation for Target Population > 1/2 to 1 mile Distance Category:

There are about 16.08 people served by private wells within this distance category.

References 2, 4.

Documentation for Target Population > 1 to 2 miles Distance Category:

There are about 4119 people served by public wells and about 64.32 people served by private wells within this distance category.

References 2, 4.

Documentation for Target Population > 2 to 3 miles Distance Category:

There are about 350 people served by public wells and about 61.64 people served by private wells within this distance category.

Reference 2, 4.

Documentation for Target Population > 3 to 4 miles Distance Category:

There are about 72.36 people served by private wells within this distance category.

References 2, 4.

Nearest Well  
AAAAAAAAAAAA

Well: 1 Municipal Well # 16  
Level of Contamination: Level II  
Distance in miles: 1.25

Nearest Well Factor: 4.50E+01

Documentation for Nearest Well:

There are three domestic water wells located on-site. An average depth of these wells is about 160 - 170 feet. They are producing water from the Barnsdall Formation.

Resources  
AAAAAAAAAAAA

Resource Use: NO

Resource Factor: 0.00E+00

Documentation for Resources:

No resources identified.

References 2, 4.

Wellhead Protection Area  
AAAAAAAAAAAAAAAAAAAAAAAAAAAA

No wellhead protection area

Wellhead Protection Area Factor: 0.00E+00

Documentation for Wellhead Protection Area:

There are no Well Head Protection Areas within a four mile radius of the site.

Reference 2.

PREscore 4.0

PAGE:

33

SURFACE WATER PATHWAY SEGMENT SUMMARY  
Ohio Oil Company - 07/14/98

| No. | Segment ID   | Segment Type | Water Type | Start Point (mi) | End Point (mi) | Average Flow (cfs) |
|-----|--------------|--------------|------------|------------------|----------------|--------------------|
| 1   | Pond (b) (6) | Lake         | Fresh      | 0.00             | 0.00           | 0                  |
| 2   | Pond         | Lake         | Fresh      | 0.00             | 0.00           | 0                  |
| 3   | Pond         | Lake         | Fresh      | 0.00             | 0.00           | 0                  |
| 4   |              | River        | Fresh      | 0.00             | 0.00           | 0                  |

Documentation for segment: Pond (b) (6):

Surface water pathway of the area was investigated by the Roy F. Weston, Inc., during the Expanded Site Inspection of the Wilcox Oil Company site. DEQ sampled surface water located on and near Ohio Oil Company site. Surface water was collected from the small intermittent stream to determine the possible migration of the contaminants from the site to Sand Creek. Aqueous sample collected from the small tributary of Sand Creek south of the site (OH-SW-1) indicate that it has not been impacted by the site at this time. Sediment samples were collected from several locations including the pond on (b) (6) property. The sample contained elevated concentrations of lead, acetone, toluene, and methylethyl ketone. Average flow (cfs) is unknown.

Reference 2.

Documentation for segment: Pond (b) (6):

The sample was collected from the pond on (b) (6) property on the central portion of the site. Average flow (cfs) is unknown. The sample contained elevated concentrations of acetone, methylethyl ketone, and toluene.

Reference 2.

Documentation for segment: Pond (b) (6):

The sample collected from the pond located about 50 feet southwest of the site contained elevated level of acetone. Average flow (cfs) is unknown.

Reference 2.

PREscore 4.0

PAGE:

34

SURFACE WATER PATHWAY OVERLAND FLOW/FLOOD COMPONENT LIKELIHOOD OF

## RELEASE

Ohio Oil Company - 07/14/98

## OBSERVED RELEASE

| No.                                                                  | Sample ID                | Sample Type | Distance<br>(miles) | Level of Contamination<br>DW | HFC       | Env |
|----------------------------------------------------------------------|--------------------------|-------------|---------------------|------------------------------|-----------|-----|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                          |             |                     |                              |           |     |
| 1                                                                    | OH-SD-1 NE Wetland       | Sediment    | 0.000               | Level II                     | Level II  |     |
| Level II                                                             |                          |             |                     |                              |           |     |
| 2                                                                    | OH-SD-2 Cen.Wetland      | Sediment    | 0.000               | Level II                     | Level II  |     |
| Level II                                                             |                          |             |                     |                              |           |     |
| 3                                                                    | OH-SD-3 Pond (b) (6)     | Sediment    | 0.000               | Level II                     | Potential |     |
| Level II                                                             |                          |             |                     |                              |           |     |
| 4                                                                    | OH-SD-4 (7) Pond (b) (6) | Sediment    | 0.000               | Level II                     | Potential |     |
| Level II                                                             |                          |             |                     |                              |           |     |
| 5                                                                    | OH-SD-5 Pond (b) (6)     | Sediment    | 0.009               | Level II                     | Potential |     |
| Level II                                                             |                          |             |                     |                              |           |     |

| Sample No.                                                           | Hazardous Substance | Concent. | Units |
|----------------------------------------------------------------------|---------------------|----------|-------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                     |          |       |
| 1                                                                    | Benzene             | 1.9E+00  | ppb   |
| 1                                                                    | Lead                | 1.1E+05  | ppb   |
| 1                                                                    | Xylene, m-          | 3.5E+00  | ppb   |
| 2                                                                    | Acetone             | 1.2E+02  | ppb   |
| 2                                                                    | Benzene             | 4.0E+00  | ppb   |
| 2                                                                    | Lead                | 1.7E+05  | ppb   |
| 2                                                                    | Methyl ethyl ketone | 5.2E+01  | ppb   |
| 3                                                                    | Acetone             | 3.7E+02  | ppb   |
| 3                                                                    | Lead                | 1.2E+05  | ppb   |
| 3                                                                    | Methyl ethyl ketone | 1.3E+02  | ppb   |
| 3                                                                    | Toluene             | 2.9E+01  | ppb   |
| 4                                                                    | Acetone             | 1.1E+02  | ppb   |
| 4                                                                    | Methyl ethyl ketone | 2.6E+01  | ppb   |
| 4                                                                    | Toluene             | 2.4E+01  | ppb   |
| 5                                                                    | Acetone             | 5.2E+01  | ppb   |

=====

Observed Release Factor 550

## Documentation for Observed Release, Sample OH-SD-1 NE Wetland:

Hazardous substances contained in the sample were identified through lab analysis. Locations, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

## Documentation for Observed Release, Sample OH-SD-2 Cen.Wetland:

Hazardous substances contained in the sample were identified through lab analysis. Location, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Documentation for Observed Release, Sample OH-SD-3 Pond (b) (6):

Location, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Documentation for Observed Release, Sample OH-SD-4(7) Pond (b) (6):

Samples OH-SD-4 and OH-SD-7 are duplicates. Hazardous substances in these samples were identified through lab analysis. Location, time of collection, samples quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Documentation for Observed Release, Sample OH-SD-5 Pond (b) (6):

Sample was collected from the pond located about 50 feet southwest of the site. Time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

PREscore 4.0

PAGE:

35

SURFACE WATER PATHWAY OVERLAND FLOW/FLOOD COMPONENT LIKELIHOOD OF RELEASE

Ohio Oil Company - 07/14/98

POTENTIAL TO RELEASE

Potential to Release by Overland Flow

Containment  
AAAAAAAAAAAA

| No. | Source ID           | HWQ Value | Containment Value |
|-----|---------------------|-----------|-------------------|
| 1   | Waste Pit           | 2.00E+02  | 10                |
| 2   | Contaminated Soil 1 | 2.47E-01  | 10                |
| 3   | Contaminated Soil 2 | 4.36E+01  | 10                |
| 4   | Groundwater Plume   | 4.00E-01  | 10                |

=====

Containment Factor: 10

Documentation for Overland Flow Containment, Source Waste Pit:

There is no evidence of hazardous substances migration from source area and neither of the following present: maintained engineered cover, or functioning and maintained run-on control system and runoff management system.

References 1, 2, 3.

Documentation for Overland Flow Containment, Source Contaminated Soil  
1:

There is no evidence of hazardous substances migration from source area and neither of the following present: maintained engineered cover, or functioning and maintained run-on control system and runoff management system.

References 1, 2.

Documentation for Overland Flow Containment, Source Contaminated Soil  
2:

There is no evidence of hazardous substances migration from source area and neither of the following present: maintained engineered cover, or functioning and maintained run-on control system and runoff management system.

References 1, 2.

Documentation for Overland Flow Containment, Source Groundwater Plume:  
The presence of two contaminants indicates their possible release and migration from the site area to groundwater.

Reference 2.

PREscore 4.0 PAGE:  
36  
SURFACE WATER PATHWAY OVERLAND FLOW/FLOOD COMPONENT LIKELIHOOD OF  
RELEASE  
Ohio Oil Company - 07/14/98

Distance to Surface Water  
AAAAAAAAAAAAAAAAAAAAAAAAAAAA

|                                   |          |
|-----------------------------------|----------|
| Distance to Surface Water:        | 0.0 feet |
| Distance to Surface Water Factor: | 25       |

Documentation for Distance to surface Water:  
There are two fresh water ponds and three wetlands on the site.  
References 2, 4.

Runoff  
AAAAAA

|                   |            |
|-------------------|------------|
| A. Drainage Area: | 47.0 acres |
|-------------------|------------|

Documentation for Drainage Area:  
The drainage area of Ohio Oil Co. site consists of 35 acres of

contaminated soil area, which includes two other distinguishable sources (the waste pit on the central portion of the site and the contaminated soil in the former tank berm area), and 12 acres of area upgradient of sources that can contribute runoff to the sources via overland flow. The acreage was plotted using a topographical map.

References 2, 5.

B. 2-year, 24-hour Rainfall: 3.8 inches

#### Documentation for Rainfall:

The 2-year 24-hour rainfall in the region of the site is about 3.8 inches.

Reference 2.

C. Soil Group: B  
Medium-textured soils with moderate infiltration rates

#### Documentation for Soil Group:

According to the Creek County Soil Survey, the site is overlies the Sandy Soils of Forested Areas Association. Strongly sloping Darnell and Pottsville soils and sloping Stephenville and Darnell fine sandy loams form part of Sandy Soils of Forested Areas Association, which covers the area of interest. Internal drainage of Darnell and Pottsville soils is moderate and moderate to rapid in Stephenville and Darnell soils.

References 2, 4.

Runoff Factor: 1

=====

Potential to Release by Overland Flow Factor: 260

PREscore 4.0

PAGE:

37

SURFACE WATER PATHWAY OVERLAND FLOW/FLOOD COMPONENT LIKELIHOOD OF RELEASE

Ohio Oil Company - 07/14/98

#### Potential to Release by Flood

| Potential Release | No. Source ID       | HWQ Value | Flood Containment Value | Flood Frequency Value | by Flood |
|-------------------|---------------------|-----------|-------------------------|-----------------------|----------|
|                   | AAAAA               |           |                         |                       |          |
| 1                 | Waste Pit           | 2.00E+02  | 10                      | 7                     | 70       |
| 2                 | Contaminated Soil 1 | 2.47E-01  | 10                      | 7                     | 70       |
| 3                 | Contaminated Soil 2 | 4.36E+01  | 10                      | 7                     | 70       |



4 Groundwater Plume 4.00E-01 10 7 70

=====

Potential to Release by Flood Factor: 70

Documentation for Flood Containment, Source Waste Pit:

The source is not contained for any flood.

References 1, 2, 3.

Documentation for Flood Frequency, Source Waste Pit:

The site is located outside the 100 year flood hazard area.

Reference 2.

Documentation for Flood Containment, Source Contaminated Soil 1:

The site is not contained for any flood.

Reference 2.

Documentation for Flood Frequency, Source Contaminated Soil 1:

The site is located outside the 100 year flood hazard area.

Reference 2.

Documentation for Flood Containment, Source Contaminated Soil 2:

The site is not contained for any flood.

References 2, 4.

Documentation for Flood Frequency, Source Contaminated Soil 2:

The site is located outside the 100 year flood hazard area.

References 2, 4.

Documentation for Flood Containment, Source Groundwater Plume:

The site is not contained for any flood.

Reference 2, 4.

Documentation for Flood Frequency, Source Groundwater Plume:

The site is located outside the 100 year flood hazard area.

Reference 2.

38

SW PATHWAY: OVERLAND/FLOOD DRINKING WATER THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 1 Waste Pit

Source Hazardous Waste Quantity Value: 200.00

| Hazardous Substance<br>Toxicity/<br>Persistence | Toxicity<br>Value | Persistence<br>Value | Value    |
|-------------------------------------------------|-------------------|----------------------|----------|
| AAAAAA                                          | 0                 | 1.00E-05             | 6.95E-   |
| 309                                             |                   |                      |          |
| Acetone                                         | 10                | 4.00E-01             | 4.00E+00 |
| Anthracene                                      | 10                | 1.00E+00             | 1.00E+01 |
| Arsenic                                         | 10000             | 1.00E+00             | 1.00E+04 |
| Benz (a) anthracene                             | 1000              | 1.00E+00             | 1.00E+03 |
| Benzo (a) pyrene                                | 10000             | 1.00E+00             | 1.00E+04 |
| Benzo (g, h, i) perylene                        | 0                 | 1.00E+00             | 0.00E+00 |
| Chrysene                                        | 10                | 1.00E+00             | 1.00E+01 |
| Lead                                            | 0                 | 1.00E+00             | 0.00E+00 |
| Mercury                                         | 10000             | 1.00E+00             | 1.00E+04 |
| Methyl ethyl ketone                             | 10                | 4.00E-01             | 4.00E+00 |
| Methylene chloride                              | 10                | 4.00E-01             | 4.00E+00 |
| Methylnaphthalene, 2-                           | 0                 | 4.00E-01             | 0.00E+00 |
| Naphthalene                                     | 100               | 4.00E-01             | 4.00E+01 |
| Phenanthrene                                    | 0                 | 1.00E+00             | 0.00E+00 |
| Pyrene                                          | 100               | 1.00E+00             | 1.00E+02 |
| Toluene                                         | 10                | 4.00E-01             | 4.00E+00 |

39

SW PATHWAY: OVERLAND/FLOOD DRINKING WATER THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 2 Contaminated Soil 1

Source Hazardous Waste Quantity Value: 0.25

| Hazardous Substance<br>Toxicity/<br>Persistence | Toxicity<br>Value | Persistence<br>Value | Value    |
|-------------------------------------------------|-------------------|----------------------|----------|
| AAAAAA                                          |                   |                      |          |
| AAAAAA                                          |                   |                      |          |
| Lead                                            | 100               | 1.00E+00             | 1.00E+02 |

40

Ohio Oil Company - 07/14/98

Source Hazardous Waste Quantity Value: 43.60

PAGE :

Ohio Oil Company - 07/14/98

Source Hazardous Waste Quantity Value: 0.40

PAGE :

Ohio Oil Company - 07/14/98

| Sample<br>Toxicity/<br>No.<br>Persistence | Observed Release<br>Hazardous Substance | Toxicity<br>Value | Persistence<br>Value |       |
|-------------------------------------------|-----------------------------------------|-------------------|----------------------|-------|
|                                           |                                         |                   |                      | Value |

```

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAA
1   Benzene                      100      4.00E-01
4.00E+01
1   Lead                          0       1.00E+00
0.00E+00
1   Xylene, m-                   1       4.00E-01
4.00E-01
2   Acetone                      10      4.00E-01
4.00E+00
2   Benzene                      100     4.00E-01
4.00E+01
2   Lead                          0       1.00E+00
0.00E+00
2   Methyl ethyl ketone          10      4.00E-01
4.00E+00
3   Acetone                      10      4.00E-01
4.00E+00
3   Lead                          0       1.00E+00
0.00E+00
3   Methyl ethyl ketone          10      4.00E-01
4.00E+00
3   Toluene                      10      4.00E-01
4.00E+00
4   Acetone                      10      4.00E-01
4.00E+00
4   Methyl ethyl ketone          10      4.00E-01
4.00E+00
4   Toluene                      10      4.00E-01
4.00E+00
5   Acetone                      10      4.00E-01
4.00E+00

```

PREscore 4.0

PAGE:

43

SW PATHWAY: OVERLAND/FLOOD DRINKING WATER THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Toxicity/Persistence Value from Source Hazardous Substances:  
1.00E+04

Toxicity/Persistence Value from Observed Release Hazardous  
Substances:  
4.00E+01

Toxicity/Persistence Factor:  
1.00E+04

Sum of Source Hazardous Waste Quantity Values:  
2.44E+02

Hazardous Waste Quantity Factor:  
100

Waste Characteristics Factor Category:  
32

44

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT DRINKING WATER THREAT  
TARGETS

Ohio Oil Company - 07/14/98

## Level I Concentrations

- N/A and/or data not specified

## Level II Concentrations

Sample ID: OH-SD-1 NE Wetland  
Sample Medium: Sediment  
Location: 0.00 miles

| Units               | Hazardous<br>Substance<br>Concentration | DW MCL<br>Benchmark<br>Concentration |
|---------------------|-----------------------------------------|--------------------------------------|
| Hazardous Substance |                                         |                                      |
| AAAAAA              |                                         |                                      |
| Benzene             | 1.9E+00                                 | N.A.                                 |
| ppb                 |                                         |                                      |
| Lead                | 1.1E+05                                 | N.A.                                 |
| ppb                 |                                         |                                      |
| Xylene, m-          | 3.5E+00                                 | N.A.                                 |
| ppb                 |                                         |                                      |

## Documentation for OH-SD-1 NE Wetland:

Hazardous substances contained in the sample were identified through lab analysis. Locations, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

## Reference 2.

Sample ID: OH-SD-2 Cen.Wetland  
Sample Medium: Sediment  
Location: 0.00 miles

| Units               | Hazardous<br>Substance<br>Concentration | DW MCL<br>Benchmark<br>Concentration |
|---------------------|-----------------------------------------|--------------------------------------|
| Hazardous Substance |                                         |                                      |
| AAAAAA              |                                         |                                      |
| Acetone             | 1.2E+02                                 | N.A.                                 |
| ppb                 |                                         |                                      |
| Benzene             | 4.0E+00                                 | N.A.                                 |
| ppb                 |                                         |                                      |
| Lead                | 1.7E+05                                 | N.A.                                 |
| ppb                 |                                         |                                      |
| Methyl ethyl ketone | 5.2E+01                                 | N.A.                                 |
| ppb                 |                                         |                                      |

## Documentation for OH-SD-2 Cen.Wetland:

Hazardous substances contained in the sample were identified through lab analysis. Location, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Sample ID: OH-SD-3 Pond (b) (6)  
Sample Medium: Sediment  
Location: 0.00 miles

| Units               | Hazardous     | DW MCL        |
|---------------------|---------------|---------------|
|                     | Substance     | Benchmark     |
|                     | Concentration | Concentration |
| Hazardous Substance |               |               |
| AAAAAA              |               |               |
| Acetone             | 3.7E+02       | N.A.          |
| ppb                 |               |               |
| Lead                | 1.2E+05       | N.A.          |
| ppb                 |               |               |
| Methyl ethyl ketone | 1.3E+02       | N.A.          |
| ppb                 |               |               |
| Toluene             | 2.9E+01       | N.A.          |
| ppb                 |               |               |

Documentation for OH-SD-3 Pond (b) (6)

Location, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Sample ID: OH-SD-4(7) Pond (b) (6)  
Sample Medium: Sediment  
Location: 0.00 miles

PREscore 4.0

PAGE:

45

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT DRINKING WATER THREAT  
TARGETS

Ohio Oil Company - 07/14/98

| Units               | Hazardous     | DW MCL        |
|---------------------|---------------|---------------|
|                     | Substance     | Benchmark     |
|                     | Concentration | Concentration |
| Hazardous Substance |               |               |
| AAAAAA              |               |               |
| Acetone             | 1.1E+02       | N.A.          |
| ppb                 |               |               |
| Methyl ethyl ketone | 2.6E+01       | N.A.          |
| ppb                 |               |               |
| Toluene             | 2.4E+01       | N.A.          |
| ppb                 |               |               |

Documentation for OH-SD-4(7) Pond (b) (6)

Samples OH-SD-4 and OH-SD-7 are duplicates. Hazrdous substances

in these samples were identified through lab analysis. Location, time of collection, samples quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Sample ID: OH-SD-5 Pond (b) (6)  
Sample Medium: Sediment  
Location: 0.01 miles

| Units               | Hazardous<br>Substance<br>Concentration | DW MCL<br>Benchmark<br>Concentration |
|---------------------|-----------------------------------------|--------------------------------------|
| Hazardous Substance |                                         |                                      |
| AAAAAA              |                                         |                                      |
| Acetone             | 5.2E+01                                 | N.A.                                 |
| ppb                 |                                         |                                      |

Documentation for OH-SD-5 Pond (b) (6)

Sample was collected from the pond located about 50 feet southwest of the site. Time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Most Distant Level I Sample  
AAAAAA  
- N/A and/or data not specified

Most Distant Level II Sample  
AAAAAA  
Sample ID: OH-SD-5 Pond (b) (6)  
Distance from the Probable Point of Entry: 0.01 miles

Documentation for OH-SD-5 Pond (b) (6)

Sample was collected from the pond located about 50 feet southwest of the site. Time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

PREscore 4.0 PAGE:  
46  
SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT DRINKING WATER THREAT TARGETS

Ohio Oil Company - 07/14/98

Level I Concentrations  
AAAAAA  
Distance Along the  
In-water Segment from the  
Intake Probable Point of Entry (miles) Population  
AAAAAA  
AA

- N/A and/or data not specified

=====

Population Served by Level I Intakes: 0.0

Level I Population Factor: 0.00E+00

PREscore 4.0

PAGE:

47

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT DRINKING WATER THREAT  
TARGETS

Ohio Oil Company - 07/14/98

Level II Concentrations

AAAAAAAAAAAAAAAAAAAAAAAAA

| Intake                    | Distance Along the<br>In-water Segment from the<br>Probable Point of Entry (miles) | Population                |
|---------------------------|------------------------------------------------------------------------------------|---------------------------|
| AAAAAAAAAAAAAAAAAAAAAAAAA | AAAAAAAAAAAAAAAAAAAAAAAAA                                                          | AAAAAAAAAAAAAAAAAAAAAAAAA |

AA

- N/A and/or data not specified

=====

Population Served by Level II Intakes: 0.0

Level II Population Factor: 0.00E+00

Documentation for Intake No intakes:

There are no drinking water intakes associated with the  
surface water pathway.

References 2, 4.

PREscore 4.0

PAGE:

48

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT DRINKING WATER THREAT  
TARGETS

Ohio Oil Company - 07/14/98

Potential Contamination

AAAAAAAAAAAAAAAAAAAAAAAAA

| Intake ID                 | Average Annual<br>Flow (cfs) | Population<br>Served      |
|---------------------------|------------------------------|---------------------------|
| AAAAAAAAAAAAAAAAAAAAAAAAA | AAAAAAAAAAAAAAAAAAAAAAAAA    | AAAAAAAAAAAAAAAAAAAAAAAAA |

AA

- N/A and/or data not specified

Type of Surface  
Water Body

Total  
Population

Dilution-Weighted  
Population



AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AA

- N/A and/or data not specified

=====

==  
Dilution-Weighted Population Served  
by Potentially Contaminated Intakes: 0.0  
  
Potential Contamination Factor: 0.0

Nearest Intake  
AAAAAAAAAAAAAA

Location of Nearest Drinking Water Intake: N.A.

Nearest Intake Factor: 0.00

Resources  
AAAAAAAAAAAA

Resource Use: NO

Resource Value: 0.00E+00

Documentation for Resources:  
  
No resources identified.  
  
References 2, 4.

PREscore 4.0 PAGE:  
49  
SW PATHWAY: OVERLAND/FLOOD HUMAN FOOD CHAIN THREAT WASTE  
CHARACTERISTICS  
Ohio Oil Company - 07/14/98

Source: 1 Waste Pit  
Source Hazardous Waste Quantity Value: 200.00

|                                                                                                              |                                |                                                          |                                                          | Toxici |
|--------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------------|----------------------------------------------------------|--------|
| ty/<br>Hazardous Substance<br>Persistence/<br>Bioaccum.                                                      | Toxicity<br>Value              | Persistence<br>Value                                     | Bio-<br>accum.<br>Value                                  | Value  |
| 313<br>Acetone<br>2.00E+00<br>Anthracene<br>5.00E+04<br>Arsenic<br>5.00E+04<br>Benz(a)anthracene<br>5.00E+07 | 0<br>10<br>10<br>10000<br>1000 | 1.00E-05<br>4.00E-01<br>1.00E+00<br>1.00E+00<br>1.00E+00 | 2.00E-05<br>5.00E-01<br>5.00E+03<br>5.00E+00<br>5.00E+04 | 1.39E- |

|                       |       |          |          |
|-----------------------|-------|----------|----------|
| Benzo(a)pyrene        | 10000 | 1.00E+00 | 5.00E+04 |
| 5.00E+08              |       |          |          |
| Benzo(g,h,i)perylene  | 0     | 1.00E+00 | 5.00E+04 |
| 0.00E+00              |       |          |          |
| Chrysene              | 10    | 1.00E+00 | 5.00E+02 |
| 5.00E+03              |       |          |          |
| Copper                | 0     | 1.00E+00 | 5.00E+04 |
| 0.00E+00              |       |          |          |
| Lead                  | 0     | 1.00E+00 | 5.00E+01 |
| 0.00E+00              |       |          |          |
| Mercury               | 10000 | 1.00E+00 | 5.00E+04 |
| 5.00E+08              |       |          |          |
| Methyl ethyl ketone   | 10    | 4.00E-01 | 5.00E-01 |
| 2.00E+00              |       |          |          |
| Methylene chloride    | 10    | 4.00E-01 | 5.00E+00 |
| 2.00E+01              |       |          |          |
| Methylnaphthalene, 2- | 0     | 4.00E-01 | 5.00E+03 |
| 0.00E+00              |       |          |          |
| Naphthalene           | 100   | 4.00E-01 | 5.00E+02 |
| 2.00E+04              |       |          |          |
| Phenanthrene          | 0     | 1.00E+00 | 5.00E+01 |
| 0.00E+00              |       |          |          |
| Pyrene                | 100   | 1.00E+00 | 5.00E+01 |
| 5.00E+03              |       |          |          |
| Toluene               | 10    | 4.00E-01 | 5.00E+01 |
| 2.00E+02              |       |          |          |
| Zinc                  | 10    | 1.00E+00 | 5.00E+02 |
| 5.00E+03              |       |          |          |

PREscore 4.0

PAGE:

50

SW PATHWAY: OVERLAND/FLOOD HUMAN FOOD CHAIN THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 2 Contaminated Soil 1

Source Hazardous Waste Quantity Value: 0.25

|          | Toxicity/<br>Hazardous Substance<br>Persistence/<br>Bioaccum. | Toxicity<br>Value | Persistence<br>Value | Bio-<br>accum.<br>Value | Toxicity<br>Value |
|----------|---------------------------------------------------------------|-------------------|----------------------|-------------------------|-------------------|
| Lead     |                                                               | 100               | 1.00E+00             | 5.00E+01                |                   |
| 5.00E+03 |                                                               |                   |                      |                         |                   |

PREscore 4.0

PAGE:

51

SW PATHWAY: OVERLAND/FLOOD HUMAN FOOD CHAIN THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 3 Contaminated Soil 2

Source Hazardous Waste Quantity Value: 43.60

|                                                         |                   |                      |                | Toxici |
|---------------------------------------------------------|-------------------|----------------------|----------------|--------|
| ty/<br>Hazardous Substance<br>Persistence/<br>Bioaccum. | Toxicity<br>Value | Persistence<br>Value | Bio-<br>accum. |        |
|                                                         |                   |                      | Value          | Value  |
| AAAAAA                                                  |                   |                      |                |        |
| Acetone                                                 | 10                | 4.00E-01             | 5.00E-01       |        |
| 2.00E+00                                                |                   |                      |                |        |
| Benzene                                                 | 100               | 4.00E-01             | 5.00E+03       |        |
| 2.00E+05                                                |                   |                      |                |        |
| Lead                                                    | 0                 | 1.00E+00             | 5.00E+01       |        |
| 0.00E+00                                                |                   |                      |                |        |
| Methyl ethyl ketone                                     | 10                | 4.00E-01             | 5.00E-01       |        |
| 2.00E+00                                                |                   |                      |                |        |
| Methylene chloride                                      | 10                | 4.00E-01             | 5.00E+00       |        |
| 2.00E+01                                                |                   |                      |                |        |
| Toluene                                                 | 10                | 4.00E-01             | 5.00E+01       |        |
| 2.00E+02                                                |                   |                      |                |        |
| Xylene, m-                                              | 1                 | 4.00E-01             | 5.00E+02       |        |
| 2.00E+02                                                |                   |                      |                |        |

PREscore 4.0

PAGE:

52

SW PATHWAY: OVERLAND/FLOOD HUMAN FOOD CHAIN THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 4 Groundwater Plume

Source Hazardous Waste Quantity Value: 0.40

|                                                         |                   |                      |                | Toxici |
|---------------------------------------------------------|-------------------|----------------------|----------------|--------|
| ty/<br>Hazardous Substance<br>Persistence/<br>Bioaccum. | Toxicity<br>Value | Persistence<br>Value | Bio-<br>accum. |        |
|                                                         |                   |                      | Value          | Value  |
| AAAAAA                                                  |                   |                      |                |        |
| Acetone                                                 | 10                | 4.00E-01             | 5.00E-01       |        |
| 2.00E+00                                                |                   |                      |                |        |
| Copper                                                  | 0                 | 1.00E+00             | 5.00E+04       |        |
| 0.00E+00                                                |                   |                      |                |        |
| Zinc                                                    | 10                | 1.00E+00             | 5.00E+02       |        |
| 5.00E+03                                                |                   |                      |                |        |

PREscore 4.0

PAGE:

53

SW PATHWAY: OVERLAND/FLOOD HUMAN FOOD CHAIN THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Hazardous Substances Found in an Observed Release

|                                                                              |                                                |                   |                      | Toxicity       |       |
|------------------------------------------------------------------------------|------------------------------------------------|-------------------|----------------------|----------------|-------|
| ty/<br>Persistence/<br>No.                                                   | Sample Observed Release<br>Hazardous Substance | Toxicity<br>Value | Persistence<br>Value | Bio-<br>accum. |       |
| Bioaccum.                                                                    |                                                |                   |                      | Value          | Value |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                                |                   |                      |                |       |
| AAAAAA                                                                       |                                                |                   |                      |                |       |
| 1                                                                            | Benzene                                        | 100               | 4.00E-01             | 5.00E+03       |       |
| 2.00E+05                                                                     |                                                |                   |                      |                |       |
| 1                                                                            | Lead                                           | 0                 | 1.00E+00             | 5.00E+01       |       |
| 0.00E+00                                                                     |                                                |                   |                      |                |       |
| 1                                                                            | Xylene, m-                                     | 1                 | 4.00E-01             | 5.00E+02       |       |
| 2.00E+02                                                                     |                                                |                   |                      |                |       |
| 2                                                                            | Acetone                                        | 10                | 4.00E-01             | 5.00E-01       |       |
| 2.00E+00                                                                     |                                                |                   |                      |                |       |
| 2                                                                            | Benzene                                        | 100               | 4.00E-01             | 5.00E+03       |       |
| 2.00E+05                                                                     |                                                |                   |                      |                |       |
| 2                                                                            | Lead                                           | 0                 | 1.00E+00             | 5.00E+01       |       |
| 0.00E+00                                                                     |                                                |                   |                      |                |       |
| 2                                                                            | Methyl ethyl ketone                            | 10                | 4.00E-01             | 5.00E-01       |       |
| 2.00E+00                                                                     |                                                |                   |                      |                |       |
| 3                                                                            | Acetone                                        | 10                | 4.00E-01             | 5.00E-01       |       |
| 2.00E+00                                                                     |                                                |                   |                      |                |       |
| 3                                                                            | Lead                                           | 0                 | 1.00E+00             | 5.00E+01       |       |
| 0.00E+00                                                                     |                                                |                   |                      |                |       |
| 3                                                                            | Methyl ethyl ketone                            | 10                | 4.00E-01             | 5.00E-01       |       |
| 2.00E+00                                                                     |                                                |                   |                      |                |       |
| 3                                                                            | Toluene                                        | 10                | 4.00E-01             | 5.00E+01       |       |
| 2.00E+02                                                                     |                                                |                   |                      |                |       |
| 4                                                                            | Acetone                                        | 10                | 4.00E-01             | 5.00E-01       |       |
| 2.00E+00                                                                     |                                                |                   |                      |                |       |
| 4                                                                            | Methyl ethyl ketone                            | 10                | 4.00E-01             | 5.00E-01       |       |
| 2.00E+00                                                                     |                                                |                   |                      |                |       |
| 4                                                                            | Toluene                                        | 10                | 4.00E-01             | 5.00E+01       |       |
| 2.00E+02                                                                     |                                                |                   |                      |                |       |
| 5                                                                            | Acetone                                        | 10                | 4.00E-01             | 5.00E-01       |       |
| 2.00E+00                                                                     |                                                |                   |                      |                |       |

54 PREscore 4.0 PAGE:

SW PATHWAY: OVERLAND/FLOOD HUMAN FOOD CHAIN THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Toxicity/Persistence/Bioaccumulation Value from Source Hazardous Substances:  
5.00E+08

Toxicity/Persistence/Bioaccumulation Value from Observed Release Hazardous Substances:  
2.00E+05

Toxicity/Persistence/Bioaccumulation Factor:  
5.00E+08

Sum of Source Hazardous Waste Quantity Values:  
2.44E+02

Hazardous Waste Quantity Factor:  
100

Waste Characteristics Factor Category:  
320

PREscore 4.0

PAGE:

55

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT HUMAN FOOD CHAIN THREAT  
TARGETS

Ohio Oil Company - 07/14/98

Level I Concentrations

- N/A and/or data not specified

Level II Concentrations

Sample ID: OH-SD-1 NE Wetland  
Sample Medium: Sediment  
Location: 0.00 miles

| Units               | Hazardous<br>Substance<br>Concentration | FDAAL<br>Benchmark<br>Concentration |
|---------------------|-----------------------------------------|-------------------------------------|
| Hazardous Substance |                                         |                                     |
| AAAAAA              |                                         |                                     |
| Benzene             | 1.9E+00                                 | N.A.                                |
| ppb                 |                                         |                                     |
| Lead                | 1.1E+05                                 | N.A.                                |
| ppb                 |                                         |                                     |
| Xylene, m-          | 3.5E+00                                 | N.A.                                |
| ppb                 |                                         |                                     |

Documentation for OH-SD-1 NE Wetland:

Hazardous substances contained in the sample were identified through lab analysis. Locations, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Sample ID: OH-SD-2 Cen.Wetland  
Sample Medium: Sediment  
Location: 0.00 miles

| Units               | Hazardous<br>Substance<br>Concentration | FDAAL<br>Benchmark<br>Concentration |
|---------------------|-----------------------------------------|-------------------------------------|
| Hazardous Substance |                                         |                                     |
| AAAAAA              |                                         |                                     |
| Acetone             | 1.2E+02                                 | N.A.                                |
| ppb                 |                                         |                                     |
| Benzene             | 4.0E+00                                 | N.A.                                |
| ppb                 |                                         |                                     |

|                     |         |      |
|---------------------|---------|------|
| Lead                | 1.7E+05 | N.A. |
| ppb                 |         |      |
| Methyl ethyl ketone | 5.2E+01 | N.A. |
| ppb                 |         |      |

Documentation for OH-SD-2 Cen.Wetland:

Hazardous substances contained in the sample were identified through lab analysis. Location, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Most Distant Level I Sample  
 AAAAAAAAAAAAAAAAAAAAAAAAAA  
 - N/A and/or data not specified

Most Distant Level II Sample  
 AAAAAAAAAAAAAAAAAAAAAAAAAA  
 Sample ID: OH-SD-1 NE Wetland  
 Distance from the Probable Point of Entry: 0.00 miles

Documentation for OH-SD-1 NE Wetland:

Hazardous substances contained in the sample were identified through lab analysis. Locations, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

PREscore 4.0 PAGE:  
 56  
 SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT HUMAN FOOD CHAIN THREAT  
 TARGETS  
 Ohio Oil Company - 07/14/98

Level I Concentrations  
 AAAAAAAAAAAAAAAAAAAAAAAAAA

|         |                                                                          |                                                                          |
|---------|--------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Chain   | Annual Production                                                        | Human Food                                                               |
| Fishery | (pounds)                                                                 | Population                                                               |
| Value   |                                                                          |                                                                          |
| AA      | AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA | AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |
| AA      |                                                                          |                                                                          |
|         | - N/A and/or data not specified                                          |                                                                          |

=====

Sum of Human Food Chain Population Values: 0.00E+00  
 Level I Concentrations Factor: 0.00E+00

57

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT HUMAN FOOD CHAIN THREAT  
TARGETS

Ohio Oil Company - 07/14/98

Level II Concentrations  
AAAAAAAAAAAAAAAAAAAAAAAAA

| Chain                     | Annual Production | Human Food |
|---------------------------|-------------------|------------|
| Fishery                   | (pounds)          | Population |
| Value                     |                   |            |
| AAAAAAAAAAAAAAAAAAAAAAAAA |                   |            |
| AA                        |                   |            |
| 1 Pond (b) (6)            | 1.0               | 3.00E-02   |
| 2 Pond (b) (6)            | 1.0               | 3.00E-02   |
| 3 Pond (b) (6)            | 1.0               | 3.00E-02   |
| =====                     |                   |            |
| ==                        |                   |            |

Sum of Human Food Chain Population Values: 9.00E-02

Level II Concentrations Factor: 9.00E-02

Documentation for Pond (b) (6) Fishery:

The owner of the property confirms that his family and some other people fish in the pond, but failed to provide an approximate amount of the consumed catch. Therefore, it is conservatively assumed, for the purposes of this SI, that one pound of fish is consumed annually.

References 2, 4.

Documentation for Pond (b) (6) Fishery:

The owner of the property confirms that his family and some other people fish in the pond, but failed to provide an approximate amount of the consumed catch. Therefore, it is conservatively assumed, for the purposes of this SI, that one pound of fish is consumed annually.

References 2, 4.

Documentation for Pond (b) (6) Fishery:

The owner of the pond confirms that his family fishes in the pond, but failed to provide an estimated amount of the consumed catch. Therefore, it is conservatively assumed, for the purposes of this SI, that one pound of fish is consumed annually.

Reference 2.

58

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT HUMAN FOOD CHAIN THREAT  
TARGETS

Ohio Oil Company - 07/14/98

Potential Contamination  
AAAAAAAAAAAAAAAAAAAA

|         | Annual<br>Production<br>(pounds) | Type of<br>Surface<br>Water<br>Body | Average<br>Annual<br>Flow<br>(cfs) | Pop.<br>Value<br>(Pi) | Dilution<br>Weight<br>(Di) |
|---------|----------------------------------|-------------------------------------|------------------------------------|-----------------------|----------------------------|
| Fishery |                                  |                                     |                                    |                       |                            |
| Pi*Di   |                                  |                                     |                                    |                       |                            |
| AAAAAA  |                                  |                                     |                                    |                       |                            |

- N/A and/or data not specified

=====

Sum of (Pi\*Di): 0.00E+00

Potential Human Food Chain Contamination Factor: 0.00E+00

Food Chain Individual  
AAAAAAAAAAAAAAAAAAAA

Location of Nearest Fishery: N.A.

Food Chain Individual Factor: 45.00

PREscore 4.0

PAGE:

59

SW PATHWAY: OVERLAND FLOW/FLOOD ENVIRONMENTAL THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 1 Waste Pit

Source Hazardous Waste Quantity Value: 200.00

| icity/<br>Hazardous Substance<br>Persistence/<br>Bioaccum. | Ecotox                    |                      |                         |
|------------------------------------------------------------|---------------------------|----------------------|-------------------------|
|                                                            | Eco-<br>toxicity<br>Value | Persistence<br>Value | Bio-<br>accum.<br>Value |
| AAAAAA                                                     |                           |                      |                         |
| 313                                                        | 0                         | 1.00E-05             | 2.00E-05 1.39E-         |
| Acetone                                                    | 100                       | 4.00E-01             | 5.00E-01                |
| 2.00E+01                                                   |                           |                      |                         |
| Anthracene                                                 | 10000                     | 1.00E+00             | 5.00E+03                |
| 5.00E+07                                                   |                           |                      |                         |
| Arsenic                                                    | 100                       | 1.00E+00             | 5.00E+02                |
| 5.00E+04                                                   |                           |                      |                         |
| Benz (a) anthracene                                        | 10000                     | 1.00E+00             | 5.00E+04                |
| 5.00E+08                                                   |                           |                      |                         |
| Benzo (a) pyrene                                           | 10000                     | 1.00E+00             | 5.00E+04                |
| 5.00E+08                                                   |                           |                      |                         |



|                       |       |          |          |        |
|-----------------------|-------|----------|----------|--------|
| Benzo(g,h,i)perylene  | 0     | 1.00E+00 | 5.00E+04 |        |
| 0.00E+00              |       |          |          |        |
| Chrysene              | 1000  | 1.00E+00 | 5.00E+03 |        |
| 5.00E+06              |       |          |          |        |
| Copper                | 100   | 1.00E+00 | 5.00E+04 |        |
| 5.00E+06              |       |          |          |        |
| Lead                  | 1000  | 1.00E+00 | 5.00E+03 |        |
| 5.00E+06              |       |          |          |        |
| Mercury               | 10000 | 1.00E+00 | 5.00E+04 |        |
| 5.00E+08              |       |          |          |        |
| Methyl ethyl ketone   | 1     | 4.00E-01 | 5.00E-01 | 2.00E- |
| 01                    |       |          |          |        |
| Methylene chloride    | 1     | 4.00E-01 | 5.00E+00 |        |
| 2.00E+00              |       |          |          |        |
| Methylnaphthalene, 2- | 1000  | 4.00E-01 | 5.00E+03 |        |
| 2.00E+06              |       |          |          |        |
| Naphthalene           | 1000  | 4.00E-01 | 5.00E+02 |        |
| 2.00E+05              |       |          |          |        |
| Phenanthrene          | 10000 | 1.00E+00 | 5.00E+03 |        |
| 5.00E+07              |       |          |          |        |
| Pyrene                | 10000 | 1.00E+00 | 5.00E+01 |        |
| 5.00E+05              |       |          |          |        |
| Toluene               | 100   | 4.00E-01 | 5.00E+01 |        |
| 2.00E+03              |       |          |          |        |
| Zinc                  | 10    | 1.00E+00 | 5.00E+02 |        |
| 5.00E+03              |       |          |          |        |

PREscore 4.0

PAGE:

60

SW PATHWAY: OVERLAND FLOW/FLOOD ENVIRONMENTAL THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 2 Contaminated Soil 1

Source Hazardous Waste Quantity Value: 0.25

Ecotox

| icity/<br>Hazardous Substance<br>Persistence/<br>Bioaccum. | Eco-<br>toxicity<br>Value | Persistence<br>Value | Bio-<br>accum.<br>Value | Value |
|------------------------------------------------------------|---------------------------|----------------------|-------------------------|-------|
| AAAAAA                                                     | 1000                      | 1.00E+00             | 5.00E+03                |       |
| Lead                                                       |                           |                      |                         |       |
| 5.00E+06                                                   |                           |                      |                         |       |

PREscore 4.0

PAGE:

61

SW PATHWAY: OVERLAND FLOW/FLOOD ENVIRONMENTAL THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 3 Contaminated Soil 2

Source Hazardous Waste Quantity Value: 43.60

Ecotox

icity/

| Hazardous Substance Persistence/<br>Bioaccum. | Eco-<br>toxicity<br>Value | Persistence<br>Value | Bio-<br>accum.<br>Value | Value  |
|-----------------------------------------------|---------------------------|----------------------|-------------------------|--------|
| Acetone                                       | 100                       | 4.00E-01             | 5.00E-01                |        |
| 2.00E+01 Benzene                              | 100                       | 4.00E-01             | 5.00E+02                |        |
| 2.00E+04 Lead                                 | 1000                      | 1.00E+00             | 5.00E+03                |        |
| 5.00E+06 Methyl ethyl ketone                  | 1                         | 4.00E-01             | 5.00E-01                | 2.00E- |
| 01 Methylene chloride                         | 1                         | 4.00E-01             | 5.00E+00                |        |
| 2.00E+00 Toluene                              | 100                       | 4.00E-01             | 5.00E+01                |        |
| 2.00E+03 Xylene, m-                           | 100                       | 4.00E-01             | 5.00E+02                |        |
| 2.00E+04                                      |                           |                      |                         |        |

PREscore 4.0

PAGE:

62

SW PATHWAY: OVERLAND FLOW/FLOOD ENVIRONMENTAL THREAT WASTE CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 4 Groundwater Plume

Source Hazardous Waste Quantity Value: 0.40

| icity/<br>Hazardous Substance Persistence/<br>Bioaccum. | Eco-<br>toxicity<br>Value | Persistence<br>Value | Bio-<br>accum.<br>Value | Value | Ecotox |
|---------------------------------------------------------|---------------------------|----------------------|-------------------------|-------|--------|
| Acetone                                                 | 100                       | 4.00E-01             | 5.00E-01                |       |        |
| 2.00E+01 Copper                                         | 100                       | 1.00E+00             | 5.00E+04                |       |        |
| 5.00E+06 Zinc                                           | 10                        | 1.00E+00             | 5.00E+02                |       |        |
| 5.00E+03                                                |                           |                      |                         |       |        |

PREscore 4.0

PAGE:

63

SW PATHWAY: OVERLAND FLOW/FLOOD ENVIRONMENTAL THREAT WASTE CHARACTERISTICS

Ohio Oil Company - 07/14/98

Hazardous Substances Found in an Observed Release

| Ecotoxicity/<br>Sample Observed Release Persistence/ | Eco-<br>toxicity | Persistence | Bio- |
|------------------------------------------------------|------------------|-------------|------|
|------------------------------------------------------|------------------|-------------|------|

[illegible]

PAGE :

Ohio Oil Company - 07/14/98

Waste Characteristics Factor Category:

65

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT ENVIRONMENTAL THREAT  
TARGETS

Ohio Oil Company - 07/14/98

## Level I Concentrations

- N/A and/or data not specified

## Level II Concentrations

Sample ID: OH-SD-1 NE Wetland

Sample Medium: Sediment

Location: 0.00 miles

| Units               | Hazardous                  | AWQC Benchmarks |        |
|---------------------|----------------------------|-----------------|--------|
|                     | Substance<br>Concentration | FRESH           | SALT   |
| Hazardous Substance | Concentration              | FRESH           | SALT   |
| AAAAAA              | AAAAAA                     | AAAAAA          | AAAAAA |
| AAAAAA              | AAAAAA                     | AAAAAA          | AAAAAA |
| Benzene             | 1.9E+00                    | N.A.            |        |
| ppb                 |                            |                 |        |
| Lead                | 1.1E+05                    | N.A.            |        |
| ppb                 |                            |                 |        |
| Xylene, m-          | 3.5E+00                    | N.A.            |        |
| ppb                 |                            |                 |        |

## Documentation for OH-SD-1 NE Wetland:

Hazardous substances contained in the sample were identified through lab analysis. Locations, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

## Reference 2.

Sample ID: OH-SD-2 Cen.Wetland

Sample Medium: Sediment

Location: 0.00 miles

| Units               | Hazardous                  | AWQC Benchmarks |        |
|---------------------|----------------------------|-----------------|--------|
|                     | Substance<br>Concentration | FRESH           | SALT   |
| Hazardous Substance | Concentration              | FRESH           | SALT   |
| AAAAAA              | AAAAAA                     | AAAAAA          | AAAAAA |
| AAAAAA              | AAAAAA                     | AAAAAA          | AAAAAA |
| Acetone             | 1.2E+02                    | N.A.            |        |
| ppb                 |                            |                 |        |
| Benzene             | 4.0E+00                    | N.A.            |        |
| ppb                 |                            |                 |        |
| Lead                | 1.7E+05                    | N.A.            |        |
| ppb                 |                            |                 |        |
| Methyl ethyl ketone | 5.2E+01                    | N.A.            |        |
| ppb                 |                            |                 |        |

Documentation for OH-SD-2 Cen.Wetland:

Hazardous substances contained in the sample were identified through lab analysis. Location, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Sample ID: OH-SD-3 Pond (b) (6)  
Sample Medium: Sediment  
Location: 0.00 miles

| Units               | Hazardous     | AWQC Benchmarks |
|---------------------|---------------|-----------------|
|                     | Substance     | Concentrations  |
| Hazardous Substance | Concentration | FRESH SALT      |
| AAAAAA              |               |                 |
| Acetone             | 3.7E+02       | N.A.            |
| ppb                 |               |                 |
| Lead                | 1.2E+05       | N.A.            |
| ppb                 |               |                 |
| Methyl ethyl ketone | 1.3E+02       | N.A.            |
| ppb                 |               |                 |
| Toluene             | 2.9E+01       | N.A.            |
| ppb                 |               |                 |

Documentation for OH-SD-3 Pond (b) (6)

Location, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Sample ID: OH-SD-4(7) Pond (b) (6)  
Sample Medium: Sediment  
Location: 0.00 miles

| Units               | Hazardous     | AWQC Benchmarks |
|---------------------|---------------|-----------------|
|                     | Substance     | Concentrations  |
| Hazardous Substance | Concentration | FRESH SALT      |
| AAAAAA              |               |                 |
| Acetone             | 1.1E+02       | N.A.            |
| ppb                 |               |                 |
| Methyl ethyl ketone | 2.6E+01       | N.A.            |
| ppb                 |               |                 |
| Toluene             | 2.4E+01       | N.A.            |
| ppb                 |               |                 |

Documentation for OH-SD-4(7) Pond (b) (6)

Samples OH-SD-4 and OH-SD-7 are duplicates. Hazardous substances in these samples were identified through lab analysis. Location, time of collection, samples quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Sample ID: OH-SD-5 Pond (b) (6)  
Sample Medium: Sediment  
Location: 0.01 miles

| Units               | Hazardous               | AWQC Benchmarks           |
|---------------------|-------------------------|---------------------------|
| Hazardous Substance | Substance Concentration | Concentrations FRESH SALT |
| AAAAA               | 5.2E+01                 | N.A.                      |
| Acetone             |                         |                           |
| ppb                 |                         |                           |

Documentation for OH-SD-5 Pond (b) (6):

Sample was collected from the pond located about 50 feet southwest of the site. Time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

PREscore 4.0

PAGE:

66

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT ENVIRONMENTAL THREAT TARGETS

Ohio Oil Company - 07/14/98

Most Distant Level I Sample  
AAAAA  
- N/A and/or data not specified

Most Distant Level II Sample  
AAAAA  
Sample ID: OH-SD-5 Pond (b) (6)  
Distance from the Probable Point of Entry: 0.01 miles

Documentation for OH-SD-5 Pond (b) (6):

Sample was collected from the pond located about 50 feet southwest of the site. Time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

PREscore 4.0

PAGE:

67

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT ENVIRONMENTAL THREAT TARGETS

Ohio Oil Company - 07/14/98

Level I Concentrations  
AAAAA

| Sensitive Environment | Distance from Probable<br>Point of Entry to<br>Sensitive Env. (miles) | Sensitive<br>Environment<br>Value |
|-----------------------|-----------------------------------------------------------------------|-----------------------------------|
| AAAA                  | AAAA                                                                  | AAAA                              |

AA - N/A and/or data not specified

Sum of Sensitive Environments Values: 0

Wetlands  
AAAA

| Wetland | Distance from Probable<br>Point of Entry to<br>Wetland (miles) | Wetlands<br>Frontage (miles) |
|---------|----------------------------------------------------------------|------------------------------|
| AAAA    | AAAA                                                           | AAAA                         |

AA - N/A and/or data not specified

Total Wetlands Frontage: 0.00 Miles Total Wetlands Value: 0

Sum of Sensitive Environments Value + Wetlands Value: 0.00E+00

Level I Concentrations Factor:  
0.00E+00

PREscore 4.0 PAGE:  
68 SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT ENVIRONMENTAL THREAT  
TARGETS

Ohio Oil Company - 07/14/98

Level II Concentrations  
AAAA

| Sensitive Environment | Distance from Probable<br>Point of Entry to<br>Sensitive Env. (miles) | Sensitive<br>Environment<br>Value |
|-----------------------|-----------------------------------------------------------------------|-----------------------------------|
| AAAA                  | AAAA                                                                  | AAAA                              |

AA - N/A and/or data not specified

Sum of Sensitive Environments Values: 0

Wetlands  
AAAA

| Wetland | Distance from Probable<br>Point of Entry to<br>Wetland (miles) | Wetlands<br>Frontage (miles) |
|---------|----------------------------------------------------------------|------------------------------|
| AAAA    | AAAA                                                           | AAAA                         |

1 NE Wetland 0.00 0.13  
Total Wetlands Frontage: 0.13 Miles Total Wetlands Value: 25

=====

==

Sum of Sensitive Environments Value + Wetlands Value: 2.50E+01

Level II Concentrations Factor:

2.50E+01

Documentation for Sensitive Environment NE Wetland:

The isolated, oval-shaped wetland with the dimensions 250ft. x 100 ft. located in the northeasternmost tank berm. Based on the provided dimensions, it is estimated that the frontage length is approximately 700 feet long (250+250+100+100).  
700 : 5280 = 0.132 mile.

References 2, 4.

Documentation for Sensitive Environment Central Wetland:

The oval-shaped wetland, with the dimensions 100ft. x 80 ft. located on the former refinery plant area on the central portion of the site. Based on the provided dimensions, it is estimated that the frontage length is approximately 360 feet long (100+100+80+80). 360 : 5280 = 0.068 mile.

References 2, 4.

PREscore 4.0 PAGE:

69

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT ENVIRONMENTAL THREAT TARGETS

Ohio Oil Company - 07/14/98

Potential Contamination

AAAAAAAAAAAAAAAAAAAAAAAAA

Sensitive Environments

AAAAAAAAAAAAAAAAAAAAAAAAA

| Type of Surface                                                           | Sensitive Environment | Sensitive Environment Value |
|---------------------------------------------------------------------------|-----------------------|-----------------------------|
| Water Body                                                                | Sensitive Environment | Value                       |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                       |                             |
| AAAA                                                                      |                       |                             |

Wetlands

AAAAAAA

| Type of Surface                                                           | Sensitive Environment | Wetlands Frontage | Wetlands Value |
|---------------------------------------------------------------------------|-----------------------|-------------------|----------------|
| Water Body                                                                | Sensitive Environment | Frontage          | Value          |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                       |                   |                |
| AAAA                                                                      |                       |                   |                |

- N/A and/or data not specified



PREscore 4.0

PAGE:

70

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT ENVIRONMENTAL THREAT  
TARGETS

Ohio Oil Company - 07/14/98

| Type of Surface                                       | Sum of Sens. Environment Values (Sj) | Sum of Wetland Frontage Values (Wj) | Dilution Weight (Dj) |
|-------------------------------------------------------|--------------------------------------|-------------------------------------|----------------------|
| Water Body                                            |                                      |                                     |                      |
| Dj (Wj+Sj)                                            |                                      |                                     |                      |
| =====                                                 |                                      |                                     |                      |
| ===                                                   |                                      |                                     |                      |
| Potential Contamination Sensitive Environment Factor: |                                      |                                     |                      |
| 0.00E+00                                              |                                      |                                     |                      |

- N/A and/or data not specified

Sum of Dj (Wj+Sj):

0.00E+00

Sum of Dj (Wj+Sj)/10:

0.00E+00

=====

===

Potential Contamination Sensitive Environment Factor:

0.00E+00

PREscore 4.0

PAGE:

71

SURFACE WATER PATHWAY GW TO SW CONTAINMENT SUMMARY  
Ohio Oil Company - 07/14/98

Containment  
=====

| No.   | Source ID           | HWO Value | Containment Value |
|-------|---------------------|-----------|-------------------|
| ===== |                     |           |                   |
| 1     | Waste Pit           | 2.00E+02  | 10                |
| 2     | Contaminated Soil 1 | 2.47E-01  | 10                |
| 3     | Contaminated Soil 2 | 4.36E+01  | 10                |
| 4     | Groundwater Plume   | 4.00E-01  | 10                |

=====

Containment Factor 10

Documentation for Ground Water Containment, Source Waste Pit:

There is no liner.

References 1, 2, 3.

Documentation for Ground Water Containment, Source Contaminated Soil 1:

There is no liner.

References 1, 2.

Documentation for Ground Water Containment, Source Contaminated Soil  
2:

There is no liner.

References 1, 2.

Documentation for Ground Water Containment, Source Groundwater Plume:

The presence of zinc and copper indicates a possible release to  
groundwater and migration of these contaminants from the site.

Reference 2.

Net Precipitation  
AAAAAAAAAAAAAAAAAAAA

|                            |      |
|----------------------------|------|
| Net Precipitation (inches) | 3.00 |
|----------------------------|------|

Documentation for Net Precipitation:

The normal annual precipitation in the region of the site is about  
37.19 inches per year. The 2-year 24-hour rainfall in the region  
of the site is about 3.8 inches.

Reference 2.

PREscore 4.0

PAGE:

72

SURFACE WATER PATHWAY GW TO SW COMPONENT LIKELIHOOD OF RELEASE  
Ohio Oil Company - 07/14/98

Aquifer: Barnsdall Formation

Type of Aquifer: Non Karst

Overlaying Aquifer: 0

Interconnected with: 0

Documentation for Barnsdall Formation Aquifer:

The Barnsdall Formation, which is a part of the Vamoosa-Ada  
aquifer in the study area, outcrops at the Ohio Oil Co. site and  
potentially receives groundwater recharge from downward infiltration  
of precipitation falling on the ground surface. The Barnsdall Formation  
is a bedrock aquifer but is not considered to be a Principal Ground  
Water

Resource by the Oklahoma State Dept. of Health. Alluvial deposits of  
the

Sand and Little Deep Fork Creeks are present to the south of the site  
within the area of interest and considered to be a Principal Ground  
Water Resource by the Oklahoma State Dept. of Health.

The alluvial deposits consist of wedge shaped layers of sand, silt, clay, and gravel. These deposits range from 0 to 100 feet in thickness. The Barnsdall Formation is approximately 200 feet thick under the site and consists of massive to thin beds of coarse to fine grainsandstone, irregularly interbedded with sandy to silty shale.

References 2, 4.

#### OBSERVED RELEASE

| No. | Well ID             | Well Type      | Distance<br>(miles) | Level of<br>Contamination |
|-----|---------------------|----------------|---------------------|---------------------------|
| 1   | Municipal Well # 16 | Standby Well   | 1.250               | Level II                  |
| 2   | Domestic Well       | Drinking Water | 0.000               | Level II                  |
| 3   | Domestic Well       | Drinking Water | 0.010               | Level II                  |

| Well<br>No. | Hazardous Substance | Concent. | MCL     | Cancer  | RFD     |
|-------------|---------------------|----------|---------|---------|---------|
| 1           | Zinc                | 1.6E+02  | 0.0E+00 | 0.0E+00 | 1.1E+04 |
| 2           | Acetone             | 1.0E+00  | 0.0E+00 | 0.0E+00 | 3.7E+03 |
| 3           | Copper              | 1.3E+02  | 1.3E+03 | 0.0E+00 | 0.0E+00 |

=====

Observed Release Factor 550

#### Documentation for Well Municipal Well # 16:

The municipal well # 16 has not been used for more than one year. The City of Bristow keeps this well as a stand-by well due to the two new wells recently added to the municipal water system. Zinc was detected in sample taken from this well at concentration of 157 ppb.

References 2, 3, 4.

#### Documentation for Well Domestic Well :

The domestic water well is located on the site and serves 2 people. The presence of acetone at the concentration of 1.0 ppb in the sample OH-GW-6 and in the trip blank sample (OH-TB) at the concentration of 3.0 ppb, and its absence in the duplicate sample (OH-GW-1) may lead to the conclusion that its presence can probably be attributed to lab activities.

Reference 2.

#### Documentation for Well Domestic Well:

The presence of copper in the groundwater collected from the well at the residence located about 50 feet southwest of the site could be attributed to the former refinery activities. Copper was detected at a concentration of 126 ppb. However, the conditions of the water pipes and faucets at the well head are unknown. The well serves 3 people (1 child).

Reference 2.

PREscore 4.0

PAGE:

73

SURFACE WATER PATHWAY GW TO SW COMPONENT LIKELIHOOD OF RELEASE  
Ohio Oil Company - 07/14/98

POTENTIAL TO RELEASE

Ground Water to Surface Water Angle  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Probable Point of Entry 0.00 miles

Angle Theta 0

Containment  
AAAAAAAAAAAA

Containment Factor 10

Net Precipitation  
AAAAAAAAAAAAAAAAAAAA

Net Precipitation Factor 1

Depth to Aquifer  
AAAAAAAAAAAAAAAAAAAA

A. Depth of Hazardous Substances 200.00 feet

Documentation for Depth of Hazardous Substances:

Zinc was detected in the sample taken from municipal well # 16.  
The depth of the well is 200 feet.

Reference 4.

B. Depth to Aquifer from Surface 25.00 feet

Documentation for Depth to Aquifer from Surface :

The upper part of the Barnsdall Formation and the alluvial aquifer are unconfined, and are very susceptible to groundwater contamination by potential wastes or contaminated soil on-site. Depth to the shallowest water is less than 25 feet.

References 2, 4.

|                             |      |      |
|-----------------------------|------|------|
| C. Depth to Aquifer (B - A) | 0.00 | feet |
| Depth to Aquifer Factor     | 5    |      |
| Travel Time<br>AAAAAAAAAAAA |      |      |
| Are All Layers Karst?       | NO   |      |

Documentation for Karst Layers:

There are no indication that the site is located in an area of karst terrain.

References 2, 4.

|                                                |       |      |
|------------------------------------------------|-------|------|
| Thickness of Layer(s) with Lowest Conductivity | 25.00 | feet |
|------------------------------------------------|-------|------|

Documentation for Thickness of Layers with Lowest Conductivity:

Depth from the surface to the shallowest water is less than 25 feet.

Reference 2.

|                                 |         |
|---------------------------------|---------|
| Hydraulic Conductivity (cm/sec) | 1.0E-04 |
|---------------------------------|---------|

Documentation for Hydraulic Conductivity:

The Barnsdall Formation is approximately 200 feet thick under the site and consists of massive to thin beds of coarse to fine grain sandstone, irregularly interbedded with sandy to silty shale. According to the Table 3-6 of 40 CFR Part 300 HRS Final Rule, the value of 1.E-04 cm/sec was assigned to represent the lowest hydraulic conductivity of the layer.

References 1, 2, 4.

|                             |     |
|-----------------------------|-----|
| Travel Time Factor          | 35  |
| =====                       |     |
| Potential to Release Factor | 410 |

PREscore 4.0

PAGE:

74

SW PATHWAY: GW TO SW COMPONENT DRINKING WATER THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 1 Waste Pit

Source Hazardous Waste Quantity Value: 200.00

| Hazardous Substance<br>Toxicity/<br>Mobility/<br>Persistence | Toxicity<br>Factor | Persist.<br>Value | Mobility<br>Value |        |
|--------------------------------------------------------------|--------------------|-------------------|-------------------|--------|
| 0.00E+00                                                     | 0                  | 1.00E-05          | 0.00E+00          |        |
| Acetone                                                      | 10                 | 4.00E-01          | 1.00E+00          |        |
| 4.00E+00                                                     | 10                 | 1.00E+00          | 2.00E-05          | 2.00E- |
| Anthracene                                                   | 10000              | 1.00E+00          | 1.00E-02          |        |
| 04                                                           | 1000               | 1.00E+00          | 2.00E-07          | 2.00E- |
| Arsenic                                                      | 10000              | 1.00E+00          | 2.00E-09          | 2.00E- |
| 1.00E+02                                                     | 0                  | 1.00E+00          | 2.00E-09          |        |
| Benz (a) anthracene                                          | 10                 | 1.00E+00          | 2.00E-07          | 2.00E- |
| 04                                                           | 10000              | 1.00E+00          | 2.00E-09          | 2.00E- |
| Benzo (a) pyrene                                             | 0                  | 1.00E+00          | 2.00E-09          |        |
| 05                                                           | 10                 | 1.00E+00          | 2.00E-07          | 2.00E- |
| Benzo (g,h,i) perylene                                       | 0                  | 1.00E+00          | 2.00E-05          |        |
| 0.00E+00                                                     | 10000              | 1.00E+00          | 2.00E-07          | 2.00E- |
| Chrysene                                                     | 10                 | 4.00E-01          | 1.00E+00          |        |
| 06                                                           | 10                 | 4.00E-01          | 1.00E+00          |        |
| Lead                                                         | 0                  | 4.00E-01          | 2.00E-03          |        |
| 0.00E+00                                                     | 100                | 4.00E-01          | 2.00E-01          |        |
| Mercury                                                      | 0                  | 1.00E+00          | 2.00E-03          |        |
| 03                                                           | 100                | 1.00E+00          | 2.00E-05          | 2.00E- |
| Methyl ethyl ketone                                          | 10                 | 4.00E-01          | 1.00E+00          |        |
| 4.00E+00                                                     | 10                 | 4.00E-01          | 1.00E+00          |        |
| Methylene chloride                                           | 0                  | 4.00E-01          | 2.00E-03          |        |
| 4.00E+00                                                     | 100                | 4.00E-01          | 2.00E-01          |        |
| Methylnaphthalene, 2-                                        | 0                  | 1.00E+00          | 2.00E-03          |        |
| 0.00E+00                                                     | 100                | 1.00E+00          | 2.00E-05          | 2.00E- |
| Naphthalene                                                  | 10                 | 4.00E-01          | 1.00E+00          |        |
| 8.00E+00                                                     | 10                 | 4.00E-01          | 1.00E+00          |        |
| Phenanthrene                                                 | 0                  | 1.00E+00          | 2.00E-03          |        |
| 0.00E+00                                                     | 100                | 1.00E+00          | 2.00E-05          | 2.00E- |
| Pyrene                                                       | 10                 | 4.00E-01          | 1.00E+00          |        |
| 03                                                           | 10                 | 4.00E-01          | 1.00E+00          |        |
| Toluene                                                      | 10                 | 4.00E-01          | 1.00E+00          |        |
| 4.00E+00                                                     |                    |                   |                   |        |

PREscore 4.0

PAGE:

75

SW PATHWAY: GW TO SW COMPONENT DRINKING WATER THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 2 Contaminated Soil 1

Source Hazardous Waste Quantity Value: 0.25

| Hazardous Substance<br>Toxicity/<br>Mobility/<br>Persistence | Toxicity<br>Factor | Persist.<br>Value | Mobility<br>Value |  |
|--------------------------------------------------------------|--------------------|-------------------|-------------------|--|
|--------------------------------------------------------------|--------------------|-------------------|-------------------|--|

03  
 Lead 100 1.00E+00 2.00E-05 2.00E-03

76  
 SW PATHWAY: GW TO SW COMPONENT DRINKING WATER THREAT WASTE  
 CHARACTERISTICS  
 Ohio Oil Company - 07/14/98

Source: 3 Contaminated Soil 2  
 Source Hazardous Waste Quantity Value: 43.60

| Hazardous Substance<br>Toxicity/<br>Mobility/<br>Persistence | Toxicity<br>Factor | Persist.<br>Value | Mobility<br>Value |
|--------------------------------------------------------------|--------------------|-------------------|-------------------|
| Acetone<br>4.00E+00                                          | 10                 | 4.00E-01          | 1.00E+00          |
| Benzene<br>4.00E+01                                          | 100                | 4.00E-01          | 1.00E+00          |
| Lead<br>0.00E+00                                             | 0                  | 1.00E+00          | 2.00E-05          |
| Methyl ethyl ketone<br>4.00E+00                              | 10                 | 4.00E-01          | 1.00E+00          |
| Methylene chloride<br>4.00E+00                               | 10                 | 4.00E-01          | 1.00E+00          |
| Toluene<br>4.00E+00                                          | 10                 | 4.00E-01          | 1.00E+00          |
| Xylene, m-<br>01                                             | 1                  | 4.00E-01          | 1.00E+00 4.00E-01 |

77  
 SW PATHWAY: GW TO SW COMPONENT DRINKING WATER THREAT WASTE  
 CHARACTERISTICS  
 Ohio Oil Company - 07/14/98

Source: 4 Groundwater Plume  
 Source Hazardous Waste Quantity Value: 0.40

| Hazardous Substance<br>Toxicity/<br>Mobility/<br>Persistence | Toxicity<br>Factor | Persist.<br>Value | Mobility<br>Value |
|--------------------------------------------------------------|--------------------|-------------------|-------------------|
| Acetone<br>4.00E+00                                          | 10                 | 4.00E-01          | 1.00E+00          |
| Copper                                                       | 0                  | 1.00E+00          | 1.00E-02          |

0.00E+00  
Zinc 10 1.00E+00 2.00E-03 2.00E-02

PREscore 4.0

PAGE:

78

SW PATHWAY: GW TO SW COMPONENT DRINKING WATER THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Hazardous Substances Found in an Observed Release

| Observed Release<br>Hazardous<br>Substance | Toxicity<br>Factor<br>Value | Persist.<br>Value | Toxicity/<br>Persistence |
|--------------------------------------------|-----------------------------|-------------------|--------------------------|
| AAAAAA                                     |                             |                   |                          |
| Acetone                                    | 10                          | 4.00E-01          | 4.00E+00                 |
| Copper                                     | 0                           | 1.00E+00          | 0.00E+00                 |
| Zinc                                       | 10                          | 1.00E+00          | 1.00E+01                 |

PREscore 4.0

PAGE:

79

SW PATHWAY: GW TO SW COMPONENT DRINKING WATER THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Toxicity/Mobility/Persistence Value from Source Hazardous  
Substances:  
1.00E+02

Toxicity/Mobility/Persistence Value from Observed Release  
Hazardous Substances:  
1.00E+01

Toxicity/Mobility/Persistence Factor:  
1.00E+02

Sum of Source Hazardous Waste Quantity Values:  
2.44E+02

Hazardous Waste Quantity Factor:  
100

Waste Characteristics Factor Category:  
10

PREscore 4.0

PAGE:

80

SW PATHWAY: GW TO SW COMPONENT DRINKING WATER THREAT TARGETS  
Ohio Oil Company - 07/14/98

Level I Concentrations

- N/A and/or data not specified

Level II Concentrations



Sample ID: OH-SD-2 Cen.Wetland  
Sample Medium: Sediment  
Location: 0.00 miles

| Observed            | Hazardous     | DW MCL        |       |    |
|---------------------|---------------|---------------|-------|----|
|                     | Substance     | Benchmark     | Units | in |
| Upper               |               |               |       |    |
| Hazardous Substance | Concentration | Concentration |       |    |
| Aquifer ?           |               |               |       |    |
| AAAAAA              |               |               |       |    |
| AAAAAA              |               |               |       |    |
| Acetone             | 1.2E+02       | N.A.          | ppb   |    |
| YES                 |               |               |       |    |
| Benzene             | 4.0E+00       | N.A.          | ppb   | NO |
| Lead                | 1.7E+05       | N.A.          | ppb   | NO |
| Methyl ethyl ketone | 5.2E+01       | N.A.          | ppb   | NO |

Documentation for OH-SD-2 Cen.Wetland:

Hazardous substances contained in the sample were identified through lab analysis. Location, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Sample ID: OH-SD-3 Pond (b) (6)  
Sample Medium: Sediment  
Location: 0.00 miles

| Observed            | Hazardous     | DW MCL        |       |    |
|---------------------|---------------|---------------|-------|----|
|                     | Substance     | Benchmark     | Units | in |
| Upper               |               |               |       |    |
| Hazardous Substance | Concentration | Concentration |       |    |
| Aquifer ?           |               |               |       |    |
| AAAAAA              |               |               |       |    |
| AAAAAA              |               |               |       |    |
| Acetone             | 3.7E+02       | N.A.          | ppb   |    |
| YES                 |               |               |       |    |
| Lead                | 1.2E+05       | N.A.          | ppb   | NO |
| Methyl ethyl ketone | 1.3E+02       | N.A.          | ppb   | NO |
| Toluene             | 2.9E+01       | N.A.          | ppb   | NO |

Documentation for OH-SD-3 Pond (b) (6)

Location, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Sample ID: OH-SD-4 (7) Pond (b) (6)

Sample Medium: Sediment  
Location: 0.00 miles

| Observed            | Hazardous     | DW MCL        |       |    |
|---------------------|---------------|---------------|-------|----|
|                     | Substance     | Benchmark     | Units | in |
| Upper               |               |               |       |    |
| Hazardous Substance | Concentration | Concentration |       |    |
| Aquifer ?           |               |               |       |    |
| AAAAAA              |               |               |       |    |
| Acetone             | 1.1E+02       | N.A.          | ppb   |    |
| YES                 |               |               |       |    |
| Methyl ethyl ketone | 2.6E+01       | N.A.          | ppb   | NO |
| Toluene             | 2.4E+01       | N.A.          | ppb   | NO |

Documentation for OH-SD-4(7) Pond (b) (6)

Samples OH-SD-4 and OH-SD-7 are duplicates. Hazrdous substances in these samples were identified through lab analysis. Location, time of collection, samples quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Sample ID: OH-SD-5 Pond (b) (6)  
Sample Medium: Sediment  
Location: 0.01 miles

PREscore 4.0

PAGE:

81

SW PATHWAY: GW TO SW COMPONENT DRINKING WATER THREAT TARGETS  
Ohio Oil Company - 07/14/98

| Observed            | Hazardous     | DW MCL        |       |    |
|---------------------|---------------|---------------|-------|----|
|                     | Substance     | Benchmark     | Units | in |
| Upper               |               |               |       |    |
| Hazardous Substance | Concentration | Concentration |       |    |
| Aquifer ?           |               |               |       |    |
| AAAAAA              |               |               |       |    |
| Acetone             | 5.2E+01       | N.A.          | ppb   |    |
| YES                 |               |               |       |    |

Documentation for OH-SD-5 Pond (b) (6)

Sample was collected from the pond located about 50 feet southwest of the site. Time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Most Distant Level I Sample  
AAAAAA  
- N/A and/or data not specified

Most Distant Level II Sample  
AAAAAAAAAAAAAAAAAAAAAAAAAAAA

Sample ID: OH-SD-5 Pond (b) (6)

Distance from the Probable Point of Entry: 0.01 miles

Documentation for OH-SD-5 Pond (b) (6)

Sample was collected from the pond located about 50 feet southwest of the site. Time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

PREscore 4.0

PAGE:

82

SW PATHWAY: GW TO SW COMPONENT DRINKING WATER THREAT TARGETS  
Ohio Oil Company - 07/14/98

Level I Concentrations  
AAAAAAAAAAAAAAAAAAAAAAAAAAAA

| Intake                          | Distance Along the<br>In-water Segment from the<br>Probable Point of Entry (miles) | Population |
|---------------------------------|------------------------------------------------------------------------------------|------------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAA    |                                                                                    |            |
| AA                              |                                                                                    |            |
| - N/A and/or data not specified |                                                                                    |            |

=====  
==

Population Served by Level I Intakes: 0.0

Level I Population Factor: 0.00E+00

PREscore 4.0

PAGE:

83

SW PATHWAY: GW TO SW COMPONENT DRINKING WATER THREAT TARGETS  
Ohio Oil Company - 07/14/98

Level II Concentrations  
AAAAAAAAAAAAAAAAAAAAAAAAAAAA

| Intake                          | Distance Along the<br>In-water Segment from the<br>Probable Point of Entry (miles) | Population |
|---------------------------------|------------------------------------------------------------------------------------|------------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAA    |                                                                                    |            |
| AA                              |                                                                                    |            |
| - N/A and/or data not specified |                                                                                    |            |

=====  
==

Population Served by Level II Intakes: 0.0

Level II Population Factor: 0.00E+00

Documentation for Intake No intakes:

There are no drinking water intakes associated with the surface water pathway.

References 2, 4.

PREscore 4.0

PAGE:

84

SW PATHWAY: GW TO SW COMPONENT DRINKING WATER THREAT TARGETS  
Ohio Oil Company - 07/14/98

Potential Contamination  
AAAAAAAAAAAAAAAAAAAA

| Intake ID                                                            | Average Annual<br>Flow (cfs) | Population<br>Served |
|----------------------------------------------------------------------|------------------------------|----------------------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                              |                      |
| AA                                                                   |                              |                      |
| - N/A and/or data not specified                                      |                              |                      |

| Type of Surface<br>Water Body                                        | Total<br>Population | Dilution-Weighted<br>Population |
|----------------------------------------------------------------------|---------------------|---------------------------------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                     |                                 |
| AA                                                                   |                     |                                 |
| - N/A and/or data not specified                                      |                     |                                 |

=====  
==  
Dilution-Weighted Population Served  
by Potentially Contaminated Intakes: 0.0  
  
Potential Contamination Factor: 0.0

Nearest Intake  
AAAAAAAAAAAA

Location of Nearest Drinking Water Intake: N.A.

Nearest Intake Factor: 0.00

Resources  
AAAAAAAAAA

Resource Use: NO

Resource Value: 0.00E+00

Documentation for Resources:

No resources identified.

References 2, 4.

PREscore 4.0

PAGE:

85

SW PATHWAY: GW TO SW COMPONENT HUMAM FOOD CHAIN THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 1 Waste Pit

Source Hazardous Waste Quantity Value: 200.00

Tox./M

| obil./<br>Hazardous Substance<br>Persistence/<br>Bioaccum. | Toxicity<br>Value | Persist.<br>Value | Mobility<br>Value | Bio-<br>accum.<br>Value | Value  |
|------------------------------------------------------------|-------------------|-------------------|-------------------|-------------------------|--------|
| AAAAA                                                      | 0                 | 1.00E-05          | 0.00E+00          | 2.00E-05                |        |
| 0.00E+00<br>Acetone                                        | 10                | 4.00E-01          | 1.00E+00          | 5.00E-01                |        |
| 2.00E+00<br>Anthracene                                     | 10                | 1.00E+00          | 2.00E-05          | 5.00E+03                |        |
| 1.00E+00<br>Arsenic                                        | 10000             | 1.00E+00          | 1.00E-02          | 5.00E+00                |        |
| 5.00E+02<br>Benz (a) anthracene                            | 1000              | 1.00E+00          | 2.00E-07          | 5.00E+04                |        |
| 1.00E+01<br>Benzo (a) pyrene                               | 10000             | 1.00E+00          | 2.00E-09          | 5.00E+04                |        |
| 1.00E+00<br>Benzo (g,h,i) perylene                         | 0                 | 1.00E+00          | 2.00E-09          | 5.00E+04                |        |
| 0.00E+00<br>Chrysene                                       | 10                | 1.00E+00          | 2.00E-07          | 5.00E+02                | 1.00E- |
| 03<br>Copper                                               | 0                 | 1.00E+00          | 1.00E-02          | 5.00E+04                |        |
| 0.00E+00<br>Lead                                           | 0                 | 1.00E+00          | 2.00E-05          | 5.00E+01                |        |
| 0.00E+00<br>Mercury                                        | 10000             | 1.00E+00          | 2.00E-07          | 5.00E+04                |        |
| 1.00E+02<br>Methyl ethyl ketone                            | 10                | 4.00E-01          | 1.00E+00          | 5.00E-01                |        |
| 2.00E+00<br>Methylene chloride                             | 10                | 4.00E-01          | 1.00E+00          | 5.00E+00                |        |
| 2.00E+01<br>Methylnaphthalene, 2-                          | 0                 | 4.00E-01          | 2.00E-03          | 5.00E+03                |        |
| 0.00E+00<br>Naphthalene                                    | 100               | 4.00E-01          | 2.00E-01          | 5.00E+02                |        |
| 4.00E+03<br>Phenanthrene                                   | 0                 | 1.00E+00          | 2.00E-03          | 5.00E+01                |        |
| 0.00E+00<br>Pyrene                                         | 100               | 1.00E+00          | 2.00E-05          | 5.00E+01                | 1.00E- |
| 01<br>Toluene                                              | 10                | 4.00E-01          | 1.00E+00          | 5.00E+01                |        |
| 2.00E+02<br>Zinc                                           | 10                | 1.00E+00          | 2.00E-03          | 5.00E+02                |        |
| 1.00E+01                                                   |                   |                   |                   |                         |        |

PREscore 4.0

PAGE:

86

SW PATHWAY: GW TO SW COMPONENT HUMAM FOOD CHAIN THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 2 Contaminated Soil 1

Source Hazardous Waste Quantity Value: 0.25

Tox./M

| obil./<br>Hazardous Substance<br>Persistence/<br>Bioaccum. | Toxicity | Persist. | Mobility | Bio-              |
|------------------------------------------------------------|----------|----------|----------|-------------------|
|                                                            | Value    | Value    | Value    | accum.            |
| AAAAAA                                                     |          |          |          |                   |
| Lead                                                       | 100      | 1.00E+00 | 2.00E-05 | 5.00E+01 1.00E-01 |

PREscore 4.0

PAGE:

87

SW PATHWAY: GW TO SW COMPONENT HUMAM FOOD CHAIN THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 3 Contaminated Soil 2

Source Hazardous Waste Quantity Value: 43.60

Tox./M

| obil./<br>Hazardous Substance<br>Persistence/<br>Bioaccum. | Toxicity | Persist. | Mobility | Bio-     |
|------------------------------------------------------------|----------|----------|----------|----------|
|                                                            | Value    | Value    | Value    | accum.   |
| AAAAAA                                                     |          |          |          |          |
| Acetone                                                    | 10       | 4.00E-01 | 1.00E+00 | 5.00E-01 |
| 2.00E+00                                                   |          |          |          |          |
| Benzene                                                    | 100      | 4.00E-01 | 1.00E+00 | 5.00E+03 |
| 2.00E+05                                                   |          |          |          |          |
| Lead                                                       | 0        | 1.00E+00 | 2.00E-05 | 5.00E+01 |
| 0.00E+00                                                   |          |          |          |          |
| Methyl ethyl ketone                                        | 10       | 4.00E-01 | 1.00E+00 | 5.00E-01 |
| 2.00E+00                                                   |          |          |          |          |
| Methylene chloride                                         | 10       | 4.00E-01 | 1.00E+00 | 5.00E+00 |
| 2.00E+01                                                   |          |          |          |          |
| Toluene                                                    | 10       | 4.00E-01 | 1.00E+00 | 5.00E+01 |
| 2.00E+02                                                   |          |          |          |          |
| Xylene, m-                                                 | 1        | 4.00E-01 | 1.00E+00 | 5.00E+02 |
| 2.00E+02                                                   |          |          |          |          |

PREscore 4.0

PAGE:

88

SW PATHWAY: GW TO SW COMPONENT HUMAM FOOD CHAIN THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 4 Groundwater Plume

Source Hazardous Waste Quantity Value: 0.40

Tox./M

|                     |          |          |          |          |
|---------------------|----------|----------|----------|----------|
| obil./              |          |          |          |          |
| Hazardous Substance | Toxicity | Persist. | Mobility | Bio-     |
| Persistence/        |          |          |          |          |
|                     | Value    | Value    | Value    | accum.   |
| Bioaccum.           |          |          |          |          |
|                     |          |          | Value    | Value    |
| AAAAAA              | AAAAAA   | AAAAAA   | AAAAAA   | AAAAAA   |
| Acetone             | 10       | 4.00E-01 | 1.00E+00 | 5.00E-01 |
| 2.00E+00            |          |          |          |          |
| Copper              | 0        | 1.00E+00 | 1.00E-02 | 5.00E+04 |
| 0.00E+00            |          |          |          |          |
| Zinc                | 10       | 1.00E+00 | 2.00E-03 | 5.00E+02 |
| 1.00E+01            |          |          |          |          |

PREscore 4.0 PAGE:

89

SW PATHWAY: GW TO SW COMPONENT HUMAM FOOD CHAIN THREAT WASTE

CHARACTERISTICS

Ohio Oil Company - 07/14/98

Hazardous Substances Found in an Observed Release

|                  |          |          |          |             |
|------------------|----------|----------|----------|-------------|
| Observed Release | Toxicity | Persist. | Bio-     | Toxicity/   |
| Hazardous        | Value    | Value    | accum.   | Persistence |
| Substance        |          |          | Value    | Bioaccum.   |
| AAAAAA           | AAAAAA   | AAAAAA   | AAAAAA   | AAAAAA      |
| Acetone          | 10       | 4.00E-01 | 5.00E-01 | 2.00E+00    |
| Copper           | 0        | 1.00E+00 | 5.00E+04 | 0.00E+00    |
| Zinc             | 10       | 1.00E+00 | 5.00E+02 | 5.00E+03    |

PREscore 4.0 PAGE:

90

SW PATHWAY: GW TO SW COMPONENT HUMAM FOOD CHAIN THREAT WASTE

CHARACTERISTICS

Ohio Oil Company - 07/14/98

Toxicity/Mobility/Persistence/Bioaccumulation Value from Source

Hazardous Substances:

2.00E+05

Toxicity/Mobility/Persistence/Bioaccumulation Value from Observed

Release Hazardous Substances:

5.00E+03

Toxicity/Mobility/Persistence/Bioaccumulation Factor:

2.00E+05

Sum of Source Hazardous Waste Quantity Values:

2.44E+02

Hazardous Waste Quantity Factor:

100

Waste Characteristics Factor Category:

56

91

SW PATHWAY: GW TO SW COMPONENT HUMAN FOOD CHAIN THREAT TARGETS  
Ohio Oil Company - 07/14/98

## Level I Concentrations

- N/A and/or data not specified

## Level II Concentrations

- N/A and/or data not specified

## Most Distant Level I Sample

AAAAAAAAAAAAAAAAAAAAAAAAAAAA

- N/A and/or data not specified

## Most Distant Level II Sample

AAAAAAAAAAAAAAAAAAAAAAAAAAAA

- N/A and/or data not specified

92

SW PATHWAY: GW TO SW COMPONENT HUMAN FOOD CHAIN THREAT TARGETS  
Ohio Oil Company - 07/14/98

## Level I Concentrations

AAAAAAAAAAAAAAAAAAAAAAAAAAAA

| Chain                           | Annual Production            | Human Food                   |
|---------------------------------|------------------------------|------------------------------|
| Fishery                         | (pounds)                     | Population                   |
| Value                           |                              |                              |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAA    | AAAAAAAAAAAAAAAAAAAAAAAAAAAA | AAAAAAAAAAAAAAAAAAAAAAAAAAAA |
| AA                              |                              |                              |
| - N/A and/or data not specified |                              |                              |

=====

==

Sum of Human Food Chain Population Values: 0.00E+00

Level I Concentrations Factor: 0.00E+00

93

SW PATHWAY: GW TO SW COMPONENT HUMAN FOOD CHAIN THREAT TARGETS  
Ohio Oil Company - 07/14/98

## Level II Concentrations

AAAAAAAAAAAAAAAAAAAAAAAAAAAA



| Chain   | Annual Production | Human Food |
|---------|-------------------|------------|
| Fishery | (pounds)          | Population |
| Value   |                   |            |
| AAAA    |                   |            |

- N/A and/or data not specified

=====

Sum of Human Food Chain Population Values: 0.00E+00

Level II Concentrations Factor: 0.00E+00

PREscore 4.0

PAGE:

94

SW PATHWAY: GW TO SW COMPONENT HUMAN FOOD CHAIN THREAT TARGETS  
Ohio Oil Company - 07/14/98

Potential Contamination

AAAA

| Fishery  | Annual Production (pounds) | Type of Surface Water Body | Average Annual Flow (cfs) | Pop. Value (Pi) | Dilution Weight (Di) |
|----------|----------------------------|----------------------------|---------------------------|-----------------|----------------------|
| Pi*Di    |                            |                            |                           |                 |                      |
| AAAA     |                            |                            |                           |                 |                      |
| 1 Pond   |                            | 1.0 Lake                   | 0                         | 0.0             | 0.00E+00             |
| 0.00E+00 |                            |                            |                           |                 |                      |
| 2 Pond   |                            | 1.0 Lake                   | 0                         | 0.0             | 0.00E+00             |
| 0.00E+00 |                            |                            |                           |                 |                      |
| 3 Pond   |                            | 1.0 Lake                   | 0                         | 0.0             | 0.00E+00             |
| 0.00E+00 |                            |                            |                           |                 |                      |

=====

Sum of (Pi\*Di): 0.00E+00

Potential Human Food Chain Contamination Factor: 0.00E+00

Documentation for Pond (b) (6) Fishery:

The owner of the property confirms that his family and some other people fish in the pond, but failed to provide an approximate amount of the consumed catch. Therefore, it is conservatively assumed, for the purposes of this SI, that one pound of fish is consumed annually.

References 2, 4.

Documentation for Pond (b) (6) Fishery:

The owner of the property confirms that his family and some other people fish in the pond, but failed to provide

an approximate amount of the consumed catch. Therefore, it is conservatively assumed, for the purposes of this SI, that one pound of fish is consumed annually.

References 2, 4.

Documentation for Pond (b) (6) Fishery:

The owner of the pond confirms that his family fishes in the pond, but failed to provide an estimated amount of the consumed catch. Therefore, it is conservatively assumed, for the purposes of this SI, that one pound of fish is consumed annually.

Reference 2.

Food Chain Individual  
AAAAAAAAAAAAAAAAAAAAA

Location of Nearest Fishery: N.A.

Food Chain Individual Factor: 45.00

PREscore 4.0

PAGE:

95

SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 1 Waste Pit

Source Hazardous Waste Quantity Value: 200.00

Ecotox

icity/

Eco-

Mobility/

Hazardous Substance  
Persistence/

toxicity Persist. Mob.

Bio-

Value Value Value accum.

Bioaccum.

Value Value

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AAAAAA

|                      |       |          |          |          |
|----------------------|-------|----------|----------|----------|
|                      | 0     | 1.00E-05 | 0.00E+00 | 2.00E-05 |
| 0.00E+00             |       |          |          |          |
| Acetone              | 100   | 4.00E-01 | 1.00E+00 | 5.00E-01 |
| 2.00E+01             |       |          |          |          |
| Anthracene           | 10000 | 1.00E+00 | 2.00E-05 | 5.00E+03 |
| 1.00E+03             |       |          |          |          |
| Arsenic              | 100   | 1.00E+00 | 1.00E-02 | 5.00E+02 |
| 5.00E+02             |       |          |          |          |
| Benz(a)anthracene    | 10000 | 1.00E+00 | 2.00E-07 | 5.00E+04 |
| 1.00E+02             |       |          |          |          |
| Benzo(a)pyrene       | 10000 | 1.00E+00 | 2.00E-09 | 5.00E+04 |
| 1.00E+00             |       |          |          |          |
| Benzo(g,h,i)perylene | 0     | 1.00E+00 | 2.00E-09 | 5.00E+04 |
| 0.00E+00             |       |          |          |          |
| Chrysene             | 1000  | 1.00E+00 | 2.00E-07 | 5.00E+03 |
| 1.00E+00             |       |          |          |          |
| Copper               | 100   | 1.00E+00 | 1.00E-02 | 5.00E+04 |

|                       |       |          |          |          |        |
|-----------------------|-------|----------|----------|----------|--------|
| 5.00E+04              |       |          |          |          |        |
| Lead                  | 1000  | 1.00E+00 | 2.00E-05 | 5.00E+03 |        |
| 1.00E+02              |       |          |          |          |        |
| Mercury               | 10000 | 1.00E+00 | 2.00E-07 | 5.00E+04 |        |
| 1.00E+02              |       |          |          |          |        |
| Methyl ethyl ketone   | 1     | 4.00E-01 | 1.00E+00 | 5.00E-01 | 2.00E- |
| 01                    |       |          |          |          |        |
| Methylene chloride    | 1     | 4.00E-01 | 1.00E+00 | 5.00E+00 |        |
| 2.00E+00              |       |          |          |          |        |
| Methylnaphthalene, 2- | 1000  | 4.00E-01 | 2.00E-03 | 5.00E+03 |        |
| 4.00E+03              |       |          |          |          |        |
| Naphthalene           | 1000  | 4.00E-01 | 2.00E-01 | 5.00E+02 |        |
| 4.00E+04              |       |          |          |          |        |
| Phenanthrene          | 10000 | 1.00E+00 | 2.00E-03 | 5.00E+03 |        |
| 1.00E+05              |       |          |          |          |        |
| Pyrene                | 10000 | 1.00E+00 | 2.00E-05 | 5.00E+01 |        |
| 1.00E+01              |       |          |          |          |        |
| Toluene               | 100   | 4.00E-01 | 1.00E+00 | 5.00E+01 |        |
| 2.00E+03              |       |          |          |          |        |
| Zinc                  | 10    | 1.00E+00 | 2.00E-03 | 5.00E+02 |        |
| 1.00E+01              |       |          |          |          |        |

PREscore 4.0

PAGE:

96

SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 2 Contaminated Soil 1

Source Hazardous Waste Quantity Value: 0.25

Ecotox

icity/

Eco-

Mobility/

Hazardous Substance

toxicity Persist. Mob.

Bio-

Persistence/

Value Value Value accum.

Bioaccum.

Value Value

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

AAAAAA

|      |      |          |          |          |
|------|------|----------|----------|----------|
| Lead | 1000 | 1.00E+00 | 2.00E-05 | 5.00E+03 |
|------|------|----------|----------|----------|

1.00E+02

PREscore 4.0

PAGE:

97

SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 3 Contaminated Soil 2

Source Hazardous Waste Quantity Value: 43.60

Ecotox

icity/

Eco-

Mobility/

Hazardous Substance

toxicity Persist. Mob.

Bio-

| Persistence/<br>Bioaccum. | Value | Value    | Value    | accum.   | Value  | Value |
|---------------------------|-------|----------|----------|----------|--------|-------|
| AAAAAA                    | 100   | 4.00E-01 | 1.00E+00 | 5.00E-01 |        |       |
| Acetone                   | 100   | 4.00E-01 | 1.00E+00 | 5.00E-01 |        |       |
| 2.00E+01                  | 100   | 4.00E-01 | 1.00E+00 | 5.00E+02 |        |       |
| Benzene                   | 1000  | 1.00E+00 | 2.00E-05 | 5.00E+03 |        |       |
| 2.00E+04                  | 1     | 4.00E-01 | 1.00E+00 | 5.00E-01 | 2.00E- |       |
| Lead                      | 1     | 4.00E-01 | 1.00E+00 | 5.00E+00 |        |       |
| 1.00E+02                  | 100   | 4.00E-01 | 1.00E+00 | 5.00E+01 |        |       |
| Methyl ethyl ketone       | 100   | 4.00E-01 | 1.00E+00 | 5.00E+02 |        |       |
| 01                        |       |          |          |          |        |       |
| Methylene chloride        |       |          |          |          |        |       |
| 2.00E+00                  |       |          |          |          |        |       |
| Toluene                   |       |          |          |          |        |       |
| 2.00E+03                  |       |          |          |          |        |       |
| Xylene, m-                |       |          |          |          |        |       |
| 2.00E+04                  |       |          |          |          |        |       |

PREscore 4.0 PAGE:

98

SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT WASTE CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 4 Groundwater Plume

Source Hazardous Waste Quantity Value: 0.40

| icity/<br>Mobility/<br>Hazardous Substance<br>Persistence/<br>Bioaccum. | Eco-<br>toxicity<br>Value | Persist.<br>Value | Mob.<br>Value | Bio-<br>accum.<br>Value | Ecotox<br>Value |
|-------------------------------------------------------------------------|---------------------------|-------------------|---------------|-------------------------|-----------------|
| AAAAAA                                                                  | 100                       | 4.00E-01          | 1.00E+00      | 5.00E-01                |                 |
| Acetone                                                                 | 100                       | 1.00E+00          | 1.00E-02      | 5.00E+04                |                 |
| 2.00E+01                                                                | 10                        | 1.00E+00          | 2.00E-03      | 5.00E+02                |                 |
| Copper                                                                  |                           |                   |               |                         |                 |
| 5.00E+04                                                                |                           |                   |               |                         |                 |
| Zinc                                                                    |                           |                   |               |                         |                 |
| 1.00E+01                                                                |                           |                   |               |                         |                 |

PREscore 4.0 PAGE:

99

SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT WASTE CHARACTERISTICS

Ohio Oil Company - 07/14/98

Hazardous Substances Found in an Observed Release

| Observed Release<br>Hazardous | Eco-<br>toxicity<br>Value | Persist.<br>Value | Bio-<br>accum. | Ecotoxicity/<br>Persistence/<br>Bioaccum. |
|-------------------------------|---------------------------|-------------------|----------------|-------------------------------------------|
|-------------------------------|---------------------------|-------------------|----------------|-------------------------------------------|

| Substance | Value | Value    | Value    | Value    |
|-----------|-------|----------|----------|----------|
| Acetone   | 100   | 4.00E-01 | 5.00E-01 | 2.00E+01 |
| Copper    | 100   | 1.00E+00 | 5.00E+04 | 5.00E+06 |
| Zinc      | 10    | 1.00E+00 | 5.00E+02 | 5.00E+03 |

PREscore 4.0 PAGE:

100  
 SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT WASTE  
 CHARACTERISTICS  
 Ohio Oil Company - 07/14/98

Ecotoxicity/Mobility/Persistence/Bioaccumulation Value from  
 Source Substances:  
 1.00E+05

Ecotoxicity/Mobility/Persistence/Bioaccumulation Value from  
 Observed Hazardous Substances:  
 5.00E+06

Ecotoxicity/Mobility/Persistence/Bioaccumulation Factor:  
 5.00E+06

Sum of Source Hazardous Waste Quantity Values:  
 2.44E+02

Hazardous Waste Quantity Factor:  
 100

Waste Characteristics Factor Category:  
 100

PREscore 4.0 PAGE:

101  
 SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT TARGETS  
 Ohio Oil Company - 07/14/98

Level I Concentrations  
 - N/A and/or data not specified

Level II Concentrations

Sample ID: OH-SD-2 Cen.Wetland  
 Sample Medium: Sediment  
 Location: 0.00 miles

| Observed            | Hazardous                | AWQC Benchmark |
|---------------------|--------------------------|----------------|
| Substance           | Concentrations           | in             |
| Upper               |                          |                |
| Hazardous Substance | Concentration FRESH SALT | Units          |
| Aquifer ?           |                          |                |
| Acetone             | 1.2E+02                  | N.A. ppb       |
| YES                 |                          |                |

|                     |         |      |     |    |
|---------------------|---------|------|-----|----|
| Benzene             | 4.0E+00 | N.A. | ppb | NO |
| Lead                | 1.7E+05 | N.A. | ppb | NO |
| Methyl ethyl ketone | 5.2E+01 | N.A. | ppb | NO |

Documentation for OH-SD-2 Cen.Wetland:

Hazardous substances contained in the sample were identified through lab analysis. Location, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Sample ID: OH-SD-3 Pond (b) (6)  
 Sample Medium: Sediment  
 Location: 0.00 miles

| Observed            | Hazardous     | AWQC Benchmark    |      |       |
|---------------------|---------------|-------------------|------|-------|
|                     | Substance     | Concentrations in |      |       |
| Upper               |               |                   |      |       |
| Hazardous Substance | Concentration | FRESH             | SALT | Units |
| Aquifer ?           |               |                   |      |       |
| AAAAAA              |               |                   |      |       |
| Acetone             | 3.7E+02       | N.A.              | ppb  |       |
| YES                 |               |                   |      |       |
| Lead                | 1.2E+05       | N.A.              | ppb  | NO    |
| Methyl ethyl ketone | 1.3E+02       | N.A.              | ppb  | NO    |
| Toluene             | 2.9E+01       | N.A.              | ppb  | NO    |

Documentation for OH-SD-3 Pond (b) (6)

Location, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Sample ID: OH-SD-4(7) Pond (b) (6)  
 Sample Medium: Sediment  
 Location: 0.00 miles

| Observed            | Hazardous     | AWQC Benchmark    |      |       |
|---------------------|---------------|-------------------|------|-------|
|                     | Substance     | Concentrations in |      |       |
| Upper               |               |                   |      |       |
| Hazardous Substance | Concentration | FRESH             | SALT | Units |
| Aquifer ?           |               |                   |      |       |
| AAAAAA              |               |                   |      |       |
| Acetone             | 1.1E+02       | N.A.              | ppb  |       |
| YES                 |               |                   |      |       |
| Methyl ethyl ketone | 2.6E+01       | N.A.              | ppb  | NO    |
| Toluene             | 2.4E+01       | N.A.              | ppb  | NO    |

Documentation for OH-SD-4(7) Pond (b) (6)

Samples OH-SD-4 and OH-SD-7 are duplicates. Hazrdous substances in these samples were identified through lab analysis. Location, time of collection, samples quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Sample ID: OH-SD-5 Pond (b) (6)  
Sample Medium: Sediment  
Location: 0.01 miles

PREscore 4.0

PAGE:

102

SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT TARGETS  
Ohio Oil Company - 07/14/98

| Observed            | Hazardous     | AWQC Benchmark |       |
|---------------------|---------------|----------------|-------|
|                     | Substance     | Concentrations | in    |
| Upper               |               |                |       |
| Hazardous Substance | Concentration | FRESH SALT     | Units |
| Aquifer ?           |               |                |       |
| AAAAAA              |               |                |       |
| AAAAAA              |               |                |       |
| Acetone             | 5.2E+01       | N.A.           | ppb   |
| YES                 |               |                |       |

Documentation for OH-SD-5 Pond (b) (6)

Sample was collected from the pond located about 50 feet southwest of the site. Time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

Most Distant Level I Sample  
AAAAAA  
- N/A and/or data not specified

Most Distant Level II Sample  
AAAAAA  
Sample ID: OH-SD-5 Pond (b) (6)  
Distance from the Probable Point of Entry: 0.01 miles

Documentation for OH-SD-5 Pond (b) (6)

Sample was collected from the pond located about 50 feet southwest of the site. Time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

103

PAGE :

**Level I Concentrations**

[illegible]

Wetlands  
ÄÄÄÄÄÄÄÄ

[illegible]

=====

Level I Concentrations Factor:  
0.00E+00

PAGE :

104

## Level II Concentrations

[illegible]

Sum of Sensitive Environments Values: 0



$\ddot{A}\ddot{A}$ 

01  
02  
03  
04  
05  
06  
07  
08  
09  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100

2.50E+01

## References 2, 4.

## References 2, 4.

| Type of Surface | Sensitive Environment | Value |
|-----------------|-----------------------|-------|
| Water Body      |                       |       |
| #####<br>#####  |                       |       |

Wetlands  
AAAAAAA

| Type of Surface | Wetlands              | Wetlands       |
|-----------------|-----------------------|----------------|
| Water Body      | Sensitive Environment | Frontage Value |
| AAAAAAA         | AAAAAAA               | AAAAAAA        |

AAAA

- N/A and/or data not specified

PREscore 4.0 PAGE:

106 SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT TARGETS  
Ohio Oil Company - 07/14/98

| Type of Surface | Sum of Sens. Environment | Sum of Wetland Frontage | Dilution Weight |
|-----------------|--------------------------|-------------------------|-----------------|
| Water Body      | Values(Sj)               | Values(Wj)              | (Dj)            |
| Dj(Wj+Sj)       | AAAAAAA                  | AAAAAAA                 | AAAAAAA         |

AAAA

- N/A and/or data not specified

Sum of Dj (Wj+Sj) :

0.00E+00

Sum of Dj (Wj+Sj) /10:

0.00E+00

=====

==

Potential Contamination Sensitive Environment Factor:

0.00E+00

PREscore 4.0 PAGE:

107 SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT LIKELIHOOD OF EXPOSURE  
Ohio Oil Company - 07/14/98

#### Likelihood of Exposure

| No. | Source ID           | Level of Contamination |
|-----|---------------------|------------------------|
| 1   | Waste Pit           | Level I                |
| 2   | Contaminated Soil 1 | Level II               |
| 3   | Contaminated Soil 2 | Level II               |

AAAAAAA

Likelihood of Exposure Factor: 550

#### Documentation for Area of Contamination, Source Waste Pit:

The dimensions of the waste pit on the central portion of the site were measured (1 pace equals approximately 3 feet) and are

450 ft. x 60 ft. The area is approximately 450 x 60 = 27000 sq. feet.

References 2, 4.

Documentation for Area of Contamination, Source Contaminated Soil 1:

The dimensions of the area were measured (1 pace equals approximately 3 feet) and are 120 ft. x 70 ft. = 8400 sq. feet.

References 2, 4.

Documentation for Area of Contamination, Source Contaminated Soil 2:

After triangulating between sample points which show elevated levels of similar contaminants, it was concluded that the contaminated soil area, which includes two other distinguishable sources (the waste pit on the central portion of the site and the contaminated soil in the former tank berm area) covers about 35 acres or 1524600 sq. feet. Acreage was plotted using a topographical map. After subtracting areas covered by the waste pit and the contaminated soil in the tank berm area (27000 sq. feet and 8400 sq. ft. respectively) and areas covered by the remaining buildings (4000 sq.ft., 650 sq. ft., and 2000 sq.ft.) from the area of contaminated soil, it was determined, that the contaminated soil covers 1482550 sq. feet.

Reference 2, 4.

Documentation for Area of Contamination, Source Groundwater Plume:

The source is a groundwater plume.

Reference 2.

| Source Hazardous Substance | Depth | Concent. | Cancer  | RFD     |
|----------------------------|-------|----------|---------|---------|
| Units                      | (ft.) |          |         |         |
| No.                        |       |          |         |         |
| AAAAAA                     |       |          |         |         |
| 1                          | < 2   | 0.0E+00  | 0.0E+00 | 0.0E+00 |
| ppm                        |       |          |         |         |
| 1 Acetone                  | < 2   | 3.4E-02  | 0.0E+00 | 7.8E+03 |
| ppm                        |       |          |         |         |
| 1 Anthracene               | < 2   | 1.9E+01  | 0.0E+00 | 2.3E+04 |
| ppm                        |       |          |         |         |
| 1 Arsenic                  | < 2   | 1.5E+01  | 4.3E-01 | 2.3E+01 |
| ppm                        |       |          |         |         |
| 1 Benz(a)anthracene        | < 2   | 1.3E+01  | 8.8E-01 | 0.0E+00 |
| ppm                        |       |          |         |         |
| 1 Benzo(a)pyrene           | < 2   | 8.3E+00  | 8.8E-02 | 0.0E+00 |
| ppm                        |       |          |         |         |
| 1 Benzo(g,h,i)perylene     | < 2   | 9.9E+00  | 0.0E+00 | 0.0E+00 |
| ppm                        |       |          |         |         |
| 1 Chrysene                 | < 2   | 3.2E+01  | 8.8E+01 | 0.0E+00 |
| ppm                        |       |          |         |         |
| 1 Lead                     | < 2   | 6.9E+01  | 0.0E+00 | 0.0E+00 |
| ppm                        |       |          |         |         |
| 1 Mercury                  | < 2   | 5.0E-01  | 0.0E+00 | 2.3E+01 |
| ppm                        |       |          |         |         |
| 1 Methyl ethyl ketone      | < 2   | 3.0E-02  | 0.0E+00 | 4.7E+04 |

|     |   |                       |     |         |         |         |
|-----|---|-----------------------|-----|---------|---------|---------|
| ppm | 1 | Methylene chloride    | < 2 | 2.0E-02 | 8.5E+01 | 4.7E+03 |
| ppm | 1 | Methylnaphthalene, 2- | < 2 | 4.3E+01 | 0.0E+00 | 0.0E+00 |
| ppm | 1 | Naphthalene           | < 2 | 5.5E+00 | 0.0E+00 | 0.0E+00 |
| ppm | 1 | Phenanthrene          | < 2 | 9.9E+01 | 0.0E+00 | 0.0E+00 |
| ppm | 1 | Pyrene                | < 2 | 1.3E+02 | 0.0E+00 | 2.3E+03 |
| ppm | 1 | Toluene               | < 2 | 2.5E-03 | 0.0E+00 | 1.6E+04 |
| ppm | 2 | Lead                  | < 2 | 9.5E+02 | 0.0E+00 | 0.0E+00 |
| ppm | 3 | Acetone               | < 2 | 3.7E-01 | 0.0E+00 | 7.8E+03 |
| ppm | 3 | Benzene               | < 2 | 4.0E-03 | 2.2E+01 | 0.0E+00 |
| ppm | 3 | Lead                  | < 2 | 2.0E+02 | 0.0E+00 | 0.0E+00 |
| ppm | 3 | Methyl ethyl ketone   | < 2 | 1.3E-01 | 0.0E+00 | 4.7E+04 |
| ppm | 3 | Methylene chloride    | < 2 | 2.8E-02 | 8.5E+01 | 4.7E+03 |
| ppm | 3 | Toluene               | < 2 | 2.9E-02 | 0.0E+00 | 1.6E+04 |
| ppm | 3 | Xylene, m-            | < 2 | 5.0E-03 | 0.0E+00 | 1.6E+05 |

#### Documentation for Source Waste Pit, Contaminants:

Hazardous substances contained in the source were identified through lab analysis. Locations, time of collections, sample quantitation limits, and background concentrations are listed in the SI narrative document.

Reference 2.

#### Documentation for Source Contaminated Soil 1, Contaminants:

Sample OH-WS-2 showed the highest concentration of lead detected on the site: 953 mg/Kg.

Reference 2.

#### Documentation for Source Contaminated Soil 2, Contaminants:

Hazardous substances contained in the source were identified through lab analysis. Locations, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report. The State Environmental Laboratory was not able to correspond identified by their analysis xylenes with three kind of xylene from the Sample Contaminants table of PREscore. Xylene, m- was picked at random.

Reference 2.

#### Documentation for Source Groundwater Plume, Contaminants:

Hazardous substances contained in the source were identified through lab analysis. Locations, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

PREscore 4.0

PAGE:

108

SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 1 Waste Pit

Source Hazardous Waste Quantity Value: 0.00

| Hazardous<br>Substance | Toxicity<br>Value |
|------------------------|-------------------|
| AAAAAA                 | 0                 |
| Acetone                | 10                |
| Anthracene             | 10                |
| Arsenic                | 10000             |
| Benz(a)anthracene      | 1000              |
| Benzo(a)pyrene         | 10000             |
| Benzo(g,h,i)perylene   | 0                 |
| Chrysene               | 10                |
| Lead                   | 0                 |
| Mercury                | 10000             |
| Methyl ethyl ketone    | 10                |
| Methylene chloride     | 10                |
| Methylnaphthalene, 2-  | 0                 |
| Naphthalene            | 100               |
| Phenanthrene           | 0                 |
| Pyrene                 | 100               |
| Toluene                | 10                |

PREscore 4.0

PAGE:

109

SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT WASTE  
CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 2 Contaminated Soil 1

Source Hazardous Waste Quantity Value: 0.25

| Hazardous<br>Substance | Toxicity<br>Value |
|------------------------|-------------------|
| AAAAAA                 | 0                 |
| Lead                   | 0                 |

PREscore 4.0

PAGE:

110

SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT WASTE

# CHARACTERISTICS

Ohio Oil Company - 07/14/98

Source: 3 Contaminated Soil 2

Source Hazardous Waste Quantity Value: 43.60

| Hazardous<br>Substance                                           | Toxicity<br>Value |
|------------------------------------------------------------------|-------------------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                   |
| AAAAAA                                                           |                   |
| Acetone                                                          | 10                |
| Benzene                                                          | 100               |
| Lead                                                             | 0                 |
| Methyl ethyl ketone                                              | 10                |
| Methylene chloride                                               | 10                |
| Toluene                                                          | 10                |
| Xylene, m-                                                       | 1                 |

PREscore 4.0

PAGE:

111

## SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT WASTE CHARACTERISTICS

Ohio Oil Company - 07/14/98

Toxicity Factor:  
1.00E+04

Sum of Source Hazardous Waste Quantity Values:  
4.39E+01

Hazardous Waste Quantity Factor: 10  
Waste Characteristics Factor Category: 18

PREscore 4.0

PAGE:

112

## SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT TARGETS Ohio Oil Company - 07/14/98

Targets  
AAAAAA

Level I Population: 0.0 Value: 0.00

Documentation for Level I Population:

There are no residents, students, or daycare attendees on property with Level 1 observed contamination and within 200 feet of that contamination.

Reference 2.

Level II Population: 48.0 Value: 48.00

Documentation for Level II Population:

There are three residences and an eight-unit apartment building on-site (32 people), and six residences are within 200 feet of the area with Level 2 observed contamination. These numbers are based on a house count taken during the site reconnaissance, multiplying the number of houses by the average number of persons (2.68) per household in Creek County, and on real number of people living on-site and its vicinity, which was counted during the sampling event.

References 2, 4.

|          |      |        |      |
|----------|------|--------|------|
| Workers: | 17.0 | Value: | 5.00 |
|----------|------|--------|------|

Documentation for Workers:

There are 17 people working within 200 feet of the area of observed contamination. This information was obtained during the meeting with Mrs. Jones, Business Coordinator of "Plain or Fancy Stiches (sic) Manufacturing".

Reference 2.

|                      |          |        |       |
|----------------------|----------|--------|-------|
| Resident Individual: | Level II | Value: | 45.00 |
| Resources:           | NO       | Value: | 0.00  |

Documentation for Resources:

No resources identified.

Reference 2.

|                                                      |                  |
|------------------------------------------------------|------------------|
| Terrestrial Sensitive Environment                    | Value            |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA | AAAAAAAAAAAAAAAA |
| - N/A and/or data not specified                      |                  |

=====

Terrestrial Sensitive Environments Factor: 0.00

Documentation for Terrestrial Environment N/A:

Terrestrial sensitive environments were not observed in the vicinity of the site.

Reference 2.

## Likelihood of Exposure

| Contam.                                            | Level of      | Attractiveness/ | Area of    |
|----------------------------------------------------|---------------|-----------------|------------|
| No. Source ID                                      | Contamination | Accessibility   | (sq. feet) |
| 1 Waste Pit                                        | Level I       | 10              | 27000      |
| 2 Contaminated Soil 1                              | Level II      | 25              | 8400       |
| 3 Contaminated Soil 2                              | Level II      | 75              | 1482550    |
| Highest Attractiveness/Accessibility Value: 75     |               |                 |            |
| Sum of Eligible Areas Of Contamination (sq. feet): |               |                 | 1517950    |
| Area of Contamination Value: 100                   |               |                 |            |

Likelihood of Exposure Factor Category: 500

Documentation for Attractiveness/Accessibility, Source Waste Pit:

The source area is accessible, with no public recreation use.

References 1, 2.

Documentation for Attractiveness/Accessibility, Source Contaminated  
Soil 1:

The source is located within the bermed area on the eastern portion of the site on (b) (6) property. The property does not have a fence on its west border. (b) (6) family utilizes the tank berm as a portion of their motorcycle trail which passes near the source.

References 2, 4.

Documentation for Attractiveness/Accessibility, Source Contaminated Soil 2:

There are three ponds within the area of observed contamination. These ponds are currently used for fishing. Also, there is a motorcycle trail on (b) (6) property.

References 1, 2, 4.

Documentation for Attractiveness/Accessibility, Source Groundwater Plume:

The source is a groundwater plume.

Reference 2.

| Source Hazardous Substance<br>Units | Depth (ft.) | Concent. | Cancer  | RFD     |
|-------------------------------------|-------------|----------|---------|---------|
| No. 1                               | < 2         | 0.0E+00  | 0.0E+00 | 0.0E+00 |
| ppm                                 |             |          |         |         |



|     |                        |     |         |         |         |
|-----|------------------------|-----|---------|---------|---------|
| 1   | Acetone                | < 2 | 3.4E-02 | 0.0E+00 | 7.8E+03 |
| ppm |                        |     |         |         |         |
| 1   | Anthracene             | < 2 | 1.9E+01 | 0.0E+00 | 2.3E+04 |
| ppm |                        |     |         |         |         |
| 1   | Arsenic                | < 2 | 1.5E+01 | 4.3E-01 | 2.3E+01 |
| ppm |                        |     |         |         |         |
| 1   | Benz (a) anthracene    | < 2 | 1.3E+01 | 8.8E-01 | 0.0E+00 |
| ppm |                        |     |         |         |         |
| 1   | Benzo (a) pyrene       | < 2 | 8.3E+00 | 8.8E-02 | 0.0E+00 |
| ppm |                        |     |         |         |         |
| 1   | Benzo (g,h,i) perylene | < 2 | 9.9E+00 | 0.0E+00 | 0.0E+00 |
| ppm |                        |     |         |         |         |
| 1   | Chrysene               | < 2 | 3.2E+01 | 8.8E+01 | 0.0E+00 |
| ppm |                        |     |         |         |         |
| 1   | Lead                   | < 2 | 6.9E+01 | 0.0E+00 | 0.0E+00 |
| ppm |                        |     |         |         |         |
| 1   | Mercury                | < 2 | 5.0E-01 | 0.0E+00 | 2.3E+01 |
| ppm |                        |     |         |         |         |
| 1   | Methyl ethyl ketone    | < 2 | 3.0E-02 | 0.0E+00 | 4.7E+04 |
| ppm |                        |     |         |         |         |
| 1   | Methylene chloride     | < 2 | 2.0E-02 | 8.5E+01 | 4.7E+03 |
| ppm |                        |     |         |         |         |
| 1   | Methylnaphthalene, 2-  | < 2 | 4.3E+01 | 0.0E+00 | 0.0E+00 |
| ppm |                        |     |         |         |         |
| 1   | Naphthalene            | < 2 | 5.5E+00 | 0.0E+00 | 0.0E+00 |
| ppm |                        |     |         |         |         |
| 1   | Phenanthrene           | < 2 | 9.9E+01 | 0.0E+00 | 0.0E+00 |
| ppm |                        |     |         |         |         |
| 1   | Pyrene                 | < 2 | 1.3E+02 | 0.0E+00 | 2.3E+03 |
| ppm |                        |     |         |         |         |
| 1   | Toluene                | < 2 | 2.5E-03 | 0.0E+00 | 1.6E+04 |
| ppm |                        |     |         |         |         |
| 2   | Lead                   | < 2 | 9.5E+02 | 0.0E+00 | 0.0E+00 |
| ppm |                        |     |         |         |         |
| 3   | Acetone                | < 2 | 3.7E-01 | 0.0E+00 | 7.8E+03 |
| ppm |                        |     |         |         |         |
| 3   | Benzene                | < 2 | 4.0E-03 | 2.2E+01 | 0.0E+00 |
| ppm |                        |     |         |         |         |
| 3   | Lead                   | < 2 | 2.0E+02 | 0.0E+00 | 0.0E+00 |
| ppm |                        |     |         |         |         |
| 3   | Methyl ethyl ketone    | < 2 | 1.3E-01 | 0.0E+00 | 4.7E+04 |
| ppm |                        |     |         |         |         |
| 3   | Methylene chloride     | < 2 | 2.8E-02 | 8.5E+01 | 4.7E+03 |
| ppm |                        |     |         |         |         |
| 3   | Toluene                | < 2 | 2.9E-02 | 0.0E+00 | 1.6E+04 |
| ppm |                        |     |         |         |         |
| 3   | Xylene, m-             | < 2 | 5.0E-03 | 0.0E+00 | 1.6E+05 |
| ppm |                        |     |         |         |         |

#### Documentation for Source Waste Pit, Contaminants:

Hazardous substances contained in the source were identified through lab analysis. Locations, time of collections, sample quantitation limits, and background concentrations are listed in the SI narrative document.

#### Reference 2.

#### Documentation for Source Contaminated Soil 1, Contaminants:

Sample OH-WS-2 showed the highest concentration of lead detected on the site: 953 mg/Kg.

Reference 2.

Documentation for Source Contaminated Soil 2, Contaminants:

Hazardous substances contained in the source were identified through lab analysis. Locations, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report. The State Environmental Laboratory was not able to correspond identified by their analysis xylenes with three kind of xylene from the Sample Contaminants table of PREscore. Xylene, m- was picked at random.

Reference 2.

Documentation for Source Groundwater Plume, Contaminants:

Hazardous substances contained in the source were identified through lab analysis. Locations, time of collection, sample quantitation limits, and background concentrations are listed in the SI narrative report.

Reference 2.

PREscore 4.0

PAGE:

114

SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT WASTE CHARACTERISTICS  
Ohio Oil Company - 07/14/98

Source: 1 Waste Pit

Source Hazardous Waste Quantity Value: 0.00

| Hazardous<br>Substance | Toxicity<br>Value |
|------------------------|-------------------|
| AAAAAA                 | 0                 |
| Acetone                | 10                |
| Anthracene             | 10                |
| Arsenic                | 10000             |
| Benz(a)anthracene      | 1000              |
| Benzo(a)pyrene         | 10000             |
| Benzo(g,h,i)perylene   | 0                 |
| Chrysene               | 10                |
| Lead                   | 0                 |
| Mercury                | 10000             |
| Methyl ethyl ketone    | 10                |
| Methylene chloride     | 10                |
| Methylnaphthalene, 2-  | 0                 |
| Naphthalene            | 100               |
| Phenanthrene           | 0                 |
| Pyrene                 | 100               |
| Toluene                | 10                |

PREscore 4.0

PAGE:

115

SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT WASTE CHARACTERISTICS  
Ohio Oil Company - 07/14/98

Source: 2 Contaminated Soil 1

Source Hazardous Waste Quantity Value: 0.25

| Hazardous<br>Substance | Toxicity<br>Value |
|------------------------|-------------------|
| AAAAAA                 | 0                 |

PREscore 4.0

PAGE:

116

SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT WASTE CHARACTERISTICS  
Ohio Oil Company - 07/14/98

Source: 3 Contaminated Soil 2

Source Hazardous Waste Quantity Value: 43.60

| Hazardous<br>Substance | Toxicity<br>Value |
|------------------------|-------------------|
| AAAAAA                 | 10                |
| Acetone                | 100               |
| Benzene                | 0                 |
| Lead                   | 10                |
| Methyl ethyl ketone    | 10                |
| Methylene chloride     | 10                |
| Toluene                | 10                |
| Xylene, m-             | 1                 |

PREscore 4.0

PAGE:

117

SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT WASTE CHARACTERISTICS  
Ohio Oil Company - 07/14/98

Toxicity Factor:  
1.00E+04

Sum of Source Hazardous Waste Quantity Values:  
4.39E+01

Hazardous Waste Quantity Factor: 10

Waste Characteristics Factor Category: 18

PREscore 4.0

PAGE:

118

SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT TARGETS  
Ohio Oil Company - 07/14/98

Nearby Individual  
AAAAAA

Population within 1/4 mile: 0.0

Nearby Individual Value: 0.0

#### Population Within 1 Mile

AAAAAAAAAAAAAAAAAAAAAAAAAAAA

| Travel Distance Category     | Number of People | Value |
|------------------------------|------------------|-------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAA |                  |       |
| AAAAAA                       |                  |       |
| > 0 to 1/4 mile              | 0.0              | 0.0   |
| > 1/4 to 1/2 mile            | 73.0             | 0.1   |
| > 1/2 to 1 mile              | 456.0            | 0.3   |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAA |                  |       |
| AAAAAA                       |                  |       |

Population Within 1 Mile Factor: 0.4

#### Documentation for Population > 0 to 1/4 mile Distance Category:

The population was counted in the resident population threat section of PREscore.

#### Documentation for Population > 1/4 to 1/2 mile Distance Category:

According to TIGER files there about 73 people are living within this distance category.

Reference 4.

#### Documentation for Population > 1/2 to 1 mile Distance Category:

According to TIGER files there about 456 people are living within this distance category.

Reference 4.

PREscore 4.0

PAGE:

119

AIR PATHWAY LIKELIHOOD OF RELEASE  
Ohio Oil Company - 07/14/98

#### OBSERVED RELEASE

| No. Sample ID                   | Distance (miles) | Level of Contamination |
|---------------------------------|------------------|------------------------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAA    |                  |                        |
| AAAAAA                          |                  |                        |
| - N/A and/or data not specified |                  |                        |

=====

Observed Release Factor: 0

#### Documentation for Sample N/A:

Since air sampling is outside the scope of a focused SI, no



Documentation for Source Type, Source Contaminated Soil 1:

Asphalt-like waste, believed to be tank bottom sediment from the 50,000 barrel storage tanks once were present on-site, was observed in two bermed areas on the eastern portion of the site during the site reconnaissance. During the sampling event both areas were covered by water pooled in these two areas after a rain. Samples were collected from both locations (OH-WS-2 and OH-WS-3), but only sample OH-WS-2 showed elevated level of just one contaminant. The dimensions of the area are: 120ft. x 70 ft. = 8400 sq. feet. The sampling team was not able to measure the depth of the waste source due to the presence of water. This waste source is considered to be a contaminated soil for the purposes of this SI.

References 2, 3, 4.

Documentation for Gas Containment, Source Contaminated Soil 2:

According to the Table 6-3 of 40 CFR Part 300 HRS Final Rule, the source conditions do not meet the listed table situations.

References 1, 2, 4.

Documentation for Source Type, Source Contaminated Soil 2:

After triangulating between sample points (OH-WS-2, OH-SS-3, OH-SD-1, OH-SD-2, OH-SD-4 (OH-SD-7), and OH-SD-5), which show elevated levels of similar contaminants, it was concluded that the contaminated soil source area, which includes two other distinguishable sources (the waste pit on the central portion of the site and the contaminated soil in the former tank berm area) covers about 35 acres or 1,524,600 sq. feet. Acreage was plotted using a topographical map. Samples OH-SS-2 (OH-SS-7), OH-SS-4, OH-SD-3, were collected within the source boundaries.

Reference 2.

Documentation for Gas Containment, Source Groundwater Plume:

According to the Table 6-3 of 40 CFR Part 300 HRS Final Rule, the source conditions do not meet the listed table situations.

References 1, 2.

Documentation for Source Type, Source Groundwater Plume:

There are only three contaminants found above background in municipal and domestic water wells. Zinc was detected in the sample taken from municipal well # 16 located one and one-quarter mile south of the site, copper was detected in the sample taken from a domestic water well at the residence located approximately 50 feet southwest of the site, and acetone was detected in the sample collected at the (b) (6) residence on-site. The duplicate sample collected at the same location does not contained acetone.

PREscore 4.0 PAGE: 121

AIR PATHWAY LIKELIHOOD OF RELEASE  
Ohio Oil Company - 07/14/98

| Gaseous Hazardous Substance | Hazardous Substance Gas Migration Potential Value |
|-----------------------------|---------------------------------------------------|
| Acetone                     | 17                                                |
| Anthracene                  | 6                                                 |
| Benz (a) anthracene         | 6                                                 |
| Benzo (a) pyrene            | 6                                                 |
| Chrysene                    | 6                                                 |
| Mercury                     | 6                                                 |
| Methyl ethyl ketone         | 17                                                |
| Methylene chloride          | 17                                                |
| Methylnaphthalene, 2-       | 11                                                |
| Naphthalene                 | 11                                                |
| Phenanthrene                | 11                                                |
| Pyrene                      | 6                                                 |
| Toluene                     | 17                                                |

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 104

122 PREscore 4.0 PAGE:  
AIR PATHWAY LIKELIHOOD OF RELEASE  
Ohio Oil Company - 07/14/98

| Gaseous Hazardous Substance                                                  | Hazardous Substance Gas Migration Potential Value |
|------------------------------------------------------------------------------|---------------------------------------------------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                                   |
| AAAAA                                                                        |                                                   |

[REDACTED]

[REDACTED]

PREscore 4.0 PAGE: 123

AIR PATHWAY LIKELIHOOD OF RELEASE

|           |        |       |       |          |         |         |
|-----------|--------|-------|-------|----------|---------|---------|
| Partic.   |        |       |       | Partic.  | Partic. |         |
| Potential |        |       |       | Partic.  | Source  | Migrtn. |
| Rel.      |        |       |       | Contain. | Type    | Potent. |
|           | Source | Value | Value | Value    | Sum     | to      |



| Value               | Source ID | Type              | (A) | (B) | (C) | (B+C) |
|---------------------|-----------|-------------------|-----|-----|-----|-------|
| A(B+C)              |           |                   |     |     |     |       |
| AAAAA               |           |                   |     |     |     |       |
| Waste Pit           |           | Other             | 10  | 0   | 11  | 11    |
| Contaminated Soil 1 |           | Contaminated Soil | 10  | 0   | 11  | 11    |
| Contaminated Soil 2 |           | Contaminated Soil | 10  | 22  | 11  | 33    |
| Groundwater Plume   |           | Other             | 10  | 0   | 11  | 11    |
| AAAAA               |           |                   |     |     |     |       |
| AAAAA               |           |                   |     |     |     |       |

Particulate Potential to Release Factor: 330

#### Documentation for Particulate Containment, Source Waste Pit:

The source conditions are not listed on Table 6-9 of 40 CFR Part 300 HRS Final Rule.

References 1, 2.

#### Documentation for Source Type, Source Waste Pit:

The source "Waste Pit" is located on the central portion of the site just west of the railroad.

Reference 2.

#### Documentation for Particulate Containment, Source Contaminated Soil 1:

The source conditions are not listed on Table 6-9 of 40 CFR Part 300 HRS Final Rule.

References 1, 2.

#### Documentation for Source Type, Source Contaminated Soil 1:

Asphalt-like waste, believed to be tank bottom sediment from the 50,000 barrel storage tanks once were present on-site, was observed in two bermed areas on the eastern portion of the site during the site reconnaissance. During the sampling event both areas were covered by water pooled in these two areas after a rain. Samples were collected from both locations (OH-WS-2 and OH-WS-3), but only sample OH-WS-2 showed elevated level of just one contaminant. The dimensions of the area are: 120ft. x 70 ft.= 8400 sq. feet. The sampling team was not able to measure the depth of the waste source due to the presence of water. This waste source is considered to be a contaminated soil for the purposes of this SI.

References 2, 3, 4.

#### Documentation for Particulate Containment, Source Contaminated Soil 2:

The source conditions are not listed on Table 6-9 of 40 CFR

Part 300 HRS Final Rule.

References 1, 2, 4.

Documentation for Source Type, Source Contaminated Soil 2:

After triangulating between sample points (OH-WS-2, OH-SS-3, OH-SD-1, OH-SD-2, OH-SD-4 (OH-SD-7), and OH-SD-5), which show elevated levels of similar contaminants, it was concluded that the contaminated soil source area, which includes two other distinguishable sources (the waste pit on the central portion of the site and the contaminated soil in the former tank berm area) covers about 35 acres or 1,524,600 sq. feet. Acreage was plotted using a topographical map. Samples OH-SS-2 (OH-SS-7), OH-SS-4, OH-SD-3, were collected within the source boundaries.

Reference 2.

Documentation for Particulate Containment, Source Groundwater Plume:

The source conditions are not listed on Table 6-9 of 40 CFR Part 300 HRS Final Rule.

References 1, 2.

Documentation for Source Type, Source Groundwater Plume:

There are only three contaminants found above background in municipal and domestic water wells. Zinc was detected in the sample taken from municipal well # 16 located one and one-quarter mile south of the site, copper was detected in the sample taken from a domestic water well at the residence located approximately 50 feet southwest of the site, and acetone was detected in the sample collected at the (b) (6) residence on-site. The duplicate sample collected at the same location does not contained acetone.

Reference 2.

Documentation for Particulate Migration Potential:

The factor was assigned by using HRS Figure 6-2.

Reference 1, 2.

126

PREscore 4.0

PAGE:

AIR PATHWAY LIKELIHOOD OF RELEASE  
Ohio Oil Company - 07/14/98

Source: Waste Pit

Particulate Hazardous Substance  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AAAAA

Anthracene

Arsenic  
Benz (a) anthracene  
Benzo (a) pyrene  
Benzo (g, h, i) perylene  
Chrysene  
Lead  
Mercury  
Methylnaphthalene, 2-  
Naphthalene  
Phenanthrene  
Pyrene

PREscore 4.0

PAGE:

127

AIR PATHWAY LIKELIHOOD OF RELEASE  
Ohio Oil Company - 07/14/98

Source: Contaminated Soil 1

Particulate Hazardous Substance  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AAAAA  
Lead

PREscore 4.0

PAGE:

128

AIR PATHWAY LIKELIHOOD OF RELEASE  
Ohio Oil Company - 07/14/98

Source: Contaminated Soil 2

Particulate Hazardous Substance  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AAAAA  
Lead

PREscore 4.0

PAGE:

129

AIR PATHWAY LIKELIHOOD OF RELEASE  
Ohio Oil Company - 07/14/98

Source: Groundwater Plume

Particulate Hazardous Substance  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AAAAA  
Copper  
Zinc

PREscore 4.0

PAGE:

130

AIR PATHWAY WASTE CHARACTERISTICS  
Ohio Oil Company - 07/14/98

Source: 1 Waste Pit

Source Hazardous Waste Quantity Value: 200.00

| Hazardous Substance<br>Toxicity/<br>Mobility | Toxicity<br>Value | Gas<br>Mobility<br>Value | Particulate<br>Mobility<br>Value |
|----------------------------------------------|-------------------|--------------------------|----------------------------------|
| 0.00E+00                                     | 0                 | 0.00E+00                 | 8.00E-04                         |
| Acetone                                      | 10                | 1.00E+00                 | NA                               |
| 1.00E+01                                     |                   |                          |                                  |
| Anthracene                                   | 10                | 2.00E-03                 | 8.00E-04                         |
| 2.00E-02                                     |                   |                          |                                  |
| Arsenic                                      | 10000             | NA                       | 8.00E-04                         |
| 8.00E+00                                     |                   |                          |                                  |
| Benz(a)anthracene                            | 1000              | 2.00E-03                 | 8.00E-04                         |
| 2.00E+00                                     |                   |                          |                                  |
| Benzo(a)pyrene                               | 10000             | 2.00E-04                 | 8.00E-04                         |
| 8.00E+00                                     |                   |                          |                                  |
| Benzo(g,h,i)perylene                         | 0                 | NA                       | 8.00E-04                         |
| 0.00E+00                                     |                   |                          |                                  |
| Chrysene                                     | 10                | 2.00E-04                 | 8.00E-04                         |
| 8.00E-03                                     |                   |                          |                                  |
| Lead                                         | 0                 | NA                       | 8.00E-04                         |
| 0.00E+00                                     |                   |                          |                                  |
| Mercury                                      | 10000             | 2.00E-01                 | 8.00E-04                         |
| 2.00E+03                                     |                   |                          |                                  |
| Methyl ethyl ketone                          | 10                | 1.00E+00                 | NA                               |
| 1.00E+01                                     |                   |                          |                                  |
| Methylene chloride                           | 10                | 1.00E+00                 | NA                               |
| 1.00E+01                                     |                   |                          |                                  |
| Methylnaphthalene, 2-                        | 0                 | 2.00E-01                 | 8.00E-04                         |
| 0.00E+00                                     |                   |                          |                                  |
| Naphthalene                                  | 100               | 2.00E-01                 | 8.00E-04                         |
| 2.00E+01                                     |                   |                          |                                  |
| Phenanthrene                                 | 0                 | 2.00E-02                 | 8.00E-04                         |
| 0.00E+00                                     |                   |                          |                                  |
| Pyrene                                       | 100               | 2.00E-03                 | 8.00E-04                         |
| 2.00E-01                                     |                   |                          |                                  |
| Toluene                                      | 10                | 1.00E+00                 | NA                               |
| 1.00E+01                                     |                   |                          |                                  |

PREscore 4.0

PAGE:

131

AIR PATHWAY WASTE CHARACTERISTICS  
Ohio Oil Company - 07/14/98

Source: 2 Contaminated Soil 1

Source Hazardous Waste Quantity Value: 0.25

| Hazardous Substance<br>Toxicity/<br>Mobility | Toxicity<br>Value | Gas<br>Mobility<br>Value | Particulate<br>Mobility<br>Value |
|----------------------------------------------|-------------------|--------------------------|----------------------------------|
| Lead                                         | 0                 | NA                       | 8.00E-04                         |

0.00E+00

PREscore 4.0

PAGE:

132

AIR PATHWAY WASTE CHARACTERISTICS  
Ohio Oil Company - 07/14/98

Source: 3 Contaminated Soil 2

Source Hazardous Waste Quantity Value: 43.60

| Hazardous Substance<br>Toxicity/<br>Mobility | Toxicity<br>Value | Gas<br>Mobility<br>Value | Particulate<br>Mobility<br>Value |
|----------------------------------------------|-------------------|--------------------------|----------------------------------|
| Acetone                                      | 10                | 1.00E+00                 | NA                               |
| 1.00E+01                                     |                   |                          |                                  |
| Benzene                                      | 100               | 1.00E+00                 | NA                               |
| 1.00E+02                                     |                   |                          |                                  |
| Lead                                         | 0                 | NA                       | 8.00E-04                         |
| 0.00E+00                                     |                   |                          |                                  |
| Methyl ethyl ketone                          | 10                | 1.00E+00                 | NA                               |
| 1.00E+01                                     |                   |                          |                                  |
| Methylene chloride                           | 10                | 1.00E+00                 | NA                               |
| 1.00E+01                                     |                   |                          |                                  |
| Toluene                                      | 10                | 1.00E+00                 | NA                               |
| 1.00E+01                                     |                   |                          |                                  |
| Xylene, m-                                   | 1                 | 1.00E+00                 | NA                               |
| 1.00E+00                                     |                   |                          |                                  |

PREscore 4.0

PAGE:

133

AIR PATHWAY WASTE CHARACTERISTICS  
Ohio Oil Company - 07/14/98

Source: 4 Groundwater Plume

Source Hazardous Waste Quantity Value: 0.40

| Hazardous Substance<br>Toxicity/<br>Mobility | Toxicity<br>Value | Gas<br>Mobility<br>Value | Particulate<br>Mobility<br>Value |
|----------------------------------------------|-------------------|--------------------------|----------------------------------|
| Acetone                                      | 10                | 1.00E+00                 | NA                               |
| 1.00E+01                                     |                   |                          |                                  |
| Copper                                       | 0                 | NA                       | 8.00E-04                         |
| 0.00E+00                                     |                   |                          |                                  |
| Zinc                                         | 10                | NA                       | 8.00E-04                         |
| 8.00E-03                                     |                   |                          |                                  |

PREscore 4.0

PAGE:

134

AIR PATHWAY WASTE CHARACTERISTICS  
Ohio Oil Company - 07/14/98

Hazardous Substances Found in an Observed Release

| Sample Observed Release<br>ID Hazardous Substance                | Particulate<br>Toxicity/<br>Mobility Value | Gas<br>Toxicity/<br>Mobility |
|------------------------------------------------------------------|--------------------------------------------|------------------------------|
| Value                                                            |                                            |                              |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                            |                              |
| AAAAAA                                                           |                                            |                              |
| - N/A and/or data not specified                                  |                                            |                              |

Documentation for Particulate Mobility:

The site is located in Bristow, Creek County, Oklahoma.  
The number was assigned by using HRS Figure 6-3.

References 1, 2.

PREscore 4.0

PAGE:

135

AIR PATHWAY WASTE CHARACTERISTICS  
Ohio Oil Company - 07/14/98

Toxicity/Mobility Value from Source Hazardous Substances:  
2.00E+03

Toxicity/Mobility Value from Observed Release Hazardous  
Substances:  
0.00E+00

Toxicity/Mobility Factor:  
2.00E+03

Sum of Source Hazardous Waste Quantity Values:  
2.44E+02

Hazardous Waste Quantity Factor:  
100

Waste Characteristics Factor Category:  
18

PREscore 4.0

PAGE:

136

AIR PATHWAY TARGETS  
Ohio Oil Company - 07/14/98

Actual Contamination

| No. Sample ID                                                    | Distance<br>(miles) | Level of Contamination |
|------------------------------------------------------------------|---------------------|------------------------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                     |                        |
| AAAAAA                                                           |                     |                        |
| - N/A and/or data not specified                                  |                     |                        |

Potential Contamination  
 AAAAAAAAAAAAAAAAAAAAAAAAAA

| Distance Categories Subject<br>to Potential Contamination                |  | Population | Value  |
|--------------------------------------------------------------------------|--|------------|--------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |  |            |        |
| AAAA                                                                     |  |            |        |
| Onsite                                                                   |  | 32.0       | 5.3000 |
| > 0 to 1/4 mile                                                          |  | 62.0       | 1.3000 |
| > 1/4 to 1/2 mile                                                        |  | 73.0       | 0.3000 |
| > 1/2 to 1 mile                                                          |  | 456.0      | 0.8000 |
| > 1 to 2 miles                                                           |  | 3824.0     | 2.7000 |
| > 2 to 3 miles                                                           |  | 802.0      | 0.1000 |
| > 3 to 4 miles                                                           |  | 618.0      | 0.0700 |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |  |            |        |
| AAAA                                                                     |  |            |        |

Potential Contaminantion Factor:  
 11.0000

Documentation for Population Onsite Distance Category:

There are three residences and an eight-unit apartment building on-site (32 people). This number is based on information provided by residents during the site visits and multiplying the number of units in the apartment building by the average number of persons (2.68) per household in Creek County.

References 2, 4.

Documentation for Population > 0 to 1/4 mile Distance Category:

There are six residences within 200 feet of the site (16 people), 11 residences (29 people) within one-quarter mile, and the "Plain or Fancy Stiches (sic) Manufacturing" (17 workers) on-site.

References 2, 4.

Documentation for Population > 1/4 to 1/2 mile Distance Category:

According to TIGER files there about 73 people are living within this distance category.

References 2, 4.

Documentation for Population > 1/2 to 1 mile Distance Category:

According to TIGER files there about 456 people are living within this distance category.

References 2, 4.

Documentation for Population > 1 to 2 miles Distance Category:

According to TIGER files there about 3824 people are living within this distance category.

References 2, 4.

Documentation for Population > 2 to 3 miles Distance Category:

According to TIGER files there about 802 people are living within this distance category.

References 2, 4.

Documentation for Population > 3 to 4 miles Distance Category:

According to TIGER files there about 618 people are living within this distance category.

References 2, 4.

PREscore 4.0

PAGE:

137

AIR PATHWAY TARGETS  
Ohio Oil Company - 07/14/98

Nearest Individual Factor  
AAAAAAAAAAAAAAAAAAAAAAAAAAAA

Level of Contamination: Potential  
Distance in miles: 0 to 1/8

Nearest Individual Value: 20

Documentation for Nearest Individual:

There are a residence and an eight-unit apartment building within the area of observed contamination.

Reference 2.

Resources  
AAAAAAAAAA

Resource Use: NO

Resource Value: 0

Documentation for Resources:

No resources identified.

Reference 2.



138

PREscore 4.0

PAGE:

AIR PATHWAY TARGETS  
Ohio Oil Company - 07/14/98

## Actual Contamination, Sensitive Environments

| Sensitive Environment           | Distance<br>(miles) | Sensitive<br>Environment<br>Value |
|---------------------------------|---------------------|-----------------------------------|
| - N/A and/or data not specified |                     |                                   |

## Actual Contamination, Wetlands

| Distance<br>Category            | Wetland<br>Acreage | Wetland<br>Acreage Value |
|---------------------------------|--------------------|--------------------------|
| - N/A and/or data not specified |                    |                          |

=====

Sensitive Environments Actual Contamination Factor: 0.000  
(Sum of Sensitive Environments + Wetlands Values)

139

PREscore 4.0

PAGE:

AIR PATHWAY TARGETS  
Ohio Oil Company - 07/14/98

## Potential Contamination, Sensitive Environments

| Weighted<br>Sensitive Environment<br>Value/10 | Distance<br>(miles) | Sensitive<br>Environment<br>Value | Distance<br>Weight |
|-----------------------------------------------|---------------------|-----------------------------------|--------------------|
| - N/A and/or data not specified               |                     |                                   |                    |

# Potential Contamination, Wetlands

| Distance<br>Weighted<br>Category<br>Value/10 | Wetland<br>Acreage | Wetland<br>Acreage Value | Distance<br>Weight |
|----------------------------------------------|--------------------|--------------------------|--------------------|
| AAAAA                                        |                    |                          |                    |
| > 3 to 4 miles                               | 125.0              | 125.0                    | 0.0014             |
| 0.017                                        |                    |                          |                    |
| > 2 to 3 miles                               | 160.0              | 175.0                    | 0.0023             |
| 0.040                                        |                    |                          |                    |
| > 1 to 2 miles                               | 85.0               | 75.0                     | 0.0051             |
| 0.038                                        |                    |                          |                    |
| > 1/2 to 1 mile                              | 11.0               | 25.0                     | 0.0160             |
| 0.040                                        |                    |                          |                    |
| > 1/4 to 1/2 mile                            | 5.0                | 25.0                     | 0.0540             |
| 0.135                                        |                    |                          |                    |
| > 0 to 1/4 mile                              | 2.0                | 25.0                     | 0.2500             |
| 0.625                                        |                    |                          |                    |
| Onsite                                       | 4.3                | 25.0                     | 1.0000             |
| 2.500                                        |                    |                          |                    |
| AAAAA                                        |                    |                          |                    |
| AAAAA                                        |                    |                          |                    |
| Total Wetland Acreage:                       | 392.3              |                          |                    |

Sum of Wetland Weighted Acreage Values/10:

3.396

=====

Sensitive Environment Potential Contamination Factor:

3.000

## Documentation for Sensitive Environment Wetland:

There are about 4.3 acres of wetland on-site.

References 2, 4.

## Documentation for Sensitive Environment Wetland:

There are about 2 acres of wetland within this distance category.

References 2, 4.

## Documentation for Sensitive Environment Wetland:

There are about 5 acres of wetland within this distance category.

References 2, 4.

## Documentation for Sensitive Environment Wetland:

There are about 11 acres of wetland within this distance category.

References 2, 4.

Documentation for Sensitive Environment Wetland:

There are about 85 acres of wetland within this distance category.

References 2, 4.

Documentation for Sensitive Environment Wetland:

There are about 160 acres of wetland within this distance category.

References 2, 4.

Documentation for Sensitive Environment Wetland:

There are about 125 acres of wetland within this distance category.

References 2, 4.

140

PREscore 4.0

PAGE:

REFERENCES

Ohio Oil Company - 07/14/98

1. U. S. EPA. 40 CFR Part 300 Hazard Ranking System; Final Rule. December 14, 1990.
2. ODEQ. Site Inspection Report. Ohio Oil Company. July 14, 1998.
3. ODEQ. Site Inspection Sampling and Analysis Plan. Ohio Oil Company. February 23, 1998.
4. ODEQ. Preliminary Assessment of the Ohio Oil Company. March 31, 1997.
5. U. S. Geological Survey. 7.5 Minute Quadrangle Topographic Map of Bristow, OK (1973). Delineation of drainage area of Ohio Oil Co. Site.